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Politics this week

Apr 26th 2007
From The Economist print edition

AP

Boris Yeltsin, Russia's former president, died. His funeral in Moscow was attended by a bevy of world leaders past and present. Vladimir Putin paid tribute to his predecessor, though critics say he has curbed the freedoms Mr Yeltsin proclaimed. See article

Meanwhile, Mr Putin called for a moratorium on **Russia's** compliance with a treaty that regulates military deployments in Europe, complaining that other countries were flouting it. Robert Gates, America's defence secretary, visited Moscow in an attempt to persuade Russia to drop its opposition to the siting of American missile-defence systems in central Europe.

In the first round of **France's presidential election**, the two front-runners, Nicolas Sarkozy and Ségolène Royal, came top. They will face each other in a run-off on May 6th, in which Mr Sarkozy is favoured to win. See article

Ukraine's president, Viktor Yushchenko, delayed until June 24th the early parliamentary election he had called for May. The government is still opposed to the early poll.

Turkey's ruling AK Party said that the foreign minister, Abdullah Gul, would be its presidential candidate next month. Secularists have opposed the prime minister, Recep Tayyip Erdogan, taking the job. See article

Last-minute hitches

America expressed frustration at **India's** reluctance to sign a controversial nuclear-power deal, which would let India buy American nuclear fuel and reactors. India objects, among other things, to a clause halting co-operation if it decides to carry out another nuclear test. See article

South Korea resumed large-scale rice aid to **North Korea**. Both Koreas also agreed to let trains cross their border for the first time in 50 years.

Benazir Bhutto, a **Pakistani** opposition leader, said she would return from exile, strengthening suspicions that she has cut a deal with the president, General Pervez Musharraf, to shore up his ailing regime. Big protests continued against Mr Musharraf's attempt to sack the country's top judge.

The International Energy Agency said China might overtake the United States as the world's biggest emitter of **greenhouse gases**, possibly as soon as this year. See article

EPA

Bhutan staged a colourful mock election with dummy parties, as part of the former king's plan to introduce democracy to the tiny Himalayan realm. The Thunder Dragon Yellow party, bearing royal colours, won a landslide. See article

Baghdad's wall

In **Iraq** a row erupted over an American military plan to build a protective wall around the Sunni Arab enclave of Adhamiya, a district of Baghdad. Iraq's prime minister, Nuri al-Maliki, said it would divide the capital along sectarian lines. But some of his top soldiers seemed to endorse it. See article

Israel's finance minister, Avraham Hirchson, took voluntary leave pending a police inquiry into allegations that he embezzled union funds. Three days later the state comptroller said that Ehud Olmert,

the prime minister, should suspend himself and be investigated too, for allegations of corruption while he was industry minister.

The **Nigerian** ruling party's candidate, Umaru Yar'Adua, was declared to have won the presidency in the first round, with 70% of votes cast. However, foreign observers reported rampant vote-rigging and the opposition called for the poll to be re-run. See article

Fighting intensified in **Somalia's** capital, Mogadishu, from which some 321,000 people have fled in the past few weeks, according to the UN. See article

Fighters of the Ogaden National Liberation Front, an ethnic-Somali group fighting for the autonomy of a region in eastern **Ethiopia**, attacked a Chinese oil-exploration facility in the desert there, killing some 65 Ethiopians and nine Chinese. Ethiopia's government blamed Eritrea for helping the attackers.

Headed for a showdown

The House approved a bill that would bring American **troops** home from Iraq by next spring; the Senate was set to follow. A presidential veto next week looks certain.

Students at **Virginia Tech** returned to their classes one week after Cho Seung-hui shot and killed 32 of their classmates before killing himself. Tim Kaine, Virginia's governor, raised the possibility of adding mental-health records to the database that gun shops in the state consult before selling a firearm to someone.

Michael Bloomberg unveiled a set of proposals to improve the environment of **New York**, including a congestion charge for parts of Manhattan. The mayor said that traffic jams were causing a lot of New York's health and economic problems. He also wants to reduce the city's greenhouse-gas emissions by 30% before 2030. See article

John McCain formally launched his already struggling presidential campaign in New Hampshire. The senator from Arizona is trailing his Republican rival, Rudy Giuliani, in opinion polls.

Alberto Gonzales said he would stay in the post of attorney-general “as long as I can continue to serve effectively”. Congress grilled Mr Gonzales last week on the motivations behind the sacking of eight federal prosecutors. Mr Bush has expressed his support, but no other Republicans echoed it.

Save your obituaries

Cuba's state media published photos of a fit-looking **Fidel Castro** meeting a visiting Chinese official, fuelling rumours that he might soon make his first public appearance since intestinal surgery that had appeared to leave him close to death. See article

Mexico City's legislative assembly broke a Latin American taboo by approving a law allowing **abortion** on demand during the first 12 weeks of pregnancy. See article

AP

Ecuador's conflict of powers continued. The Constitutional Tribunal reinstated 51 opposition legislators ousted by a lower court. But a rival version of the country's Congress, loyal to the leftist president, Rafael Correa, voted to dismiss the tribunal. Earlier this month, Mr Correa's plan to set up a constituent assembly won the backing of 82% of voters

In **Canada**, an opposition proposal to withdraw Canadian troops from Afghanistan in February 2009 was defeated in the House of Commons.

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Business this week

Apr 26th 2007
From The Economist print edition

A consortium of banks led by **Royal Bank of Scotland** said it would bid for control of **ABN AMRO**, two days after the Dutch bank had agreed to a *euro*66 billion ($90 billion) takeover from Britain's **Barclays**. The RBS group said the deal it was interested in making was worth *euro*72 billion, but its offer is contingent on ABN keeping hold of **LaSalle**. ABN's agreement with Barclays involves selling LaSalle, based in Chicago, to **Bank of America** for $21 billion. See article

Rumours about another big banking combination were downplayed when Italy's **UniCredit** denied it was in merger talks with France's **Société Générale**. Observers noted that if there was such a politically sensitive deal to be made it was unlikely to be announced until after the French presidential elections.

In a long-running bank battle in Portugal, **Millennium BCP** raised its offer for **Banco BPI** by around a quarter, to *euro*5.3 billion ($7.2 billion). BCP first approached its smaller rival more than a year ago, but has met stiff opposition from BPI's largest shareholders, including Spain's La Caixa bank.

A new broom

Klaus Kleinfeld told the supervisory board of **Siemens** that he would step down from the post of chief executive in October. The German engineering group is reeling from allegations that it paid bribes to secure contracts. An investigation is also under way into whether the management at Siemens financed a rival to its main trade union. Heinrich von Pierer, the board's chairman, resigned last week. See article

AstraZeneca, an Anglo-Swedish drugs company, agreed to buy **MedImmune**, which specialises in biomedicines, and vaccines, for $15.6 billion. With increasing competition from generic drugs, companies are attracted to hard-to-copy biological medicines.

The battle for **Alliance Boots** seemed won when a consortium led by its deputy executive chairman and backed by **Kohlberg Kravis Roberts** upped its stake in the British drugs retailer, causing a rival consortium that included the Wellcome Trust, a medical charity, to drop its bid. Worth some £11.1 billion ($22.2 billion), KKR's offer for Boots is Europe's biggest-ever leveraged buy-out.

Life in the fast lane

Toyota sold more vehicles worldwide than **General Motors** in the first quarter, overtaking its Detroit rival for the first time. Toyota, which sold 2.35m cars and trucks compared with GM's 2.26m, is this year expected to become the world's biggest carmaker by annual sales. GM has retained the top spot since it passed Ford in 1931. See article

British Airways revealed that it was talking to “a number” of private-equity firms about how to use its 10% stake in **Iberia**, but ruled out making an independent bid for Spain's national carrier. Iberia, which operates several routes to Latin America in alliance with BA and others, was recently approached with a *euro*3.4 billion ($4.6 billion) offer by Texas Pacific Group, one of the firms rumoured to be talking to the British airline. See article

France's **Carrefour** said it was buying **Atacadão**, a Brazilian chain of discount stores, for $1.1 billion, to become Brazil's largest grocer.

Vonage's anaemic share price soared by 29% (it is still some 80% down from last year's public offering) after a court overturned a previous ruling that barred the company from signing up new customers to its internet phone service while it contests a patent dispute with Verizon.

Apple rallied around its boss, Steve Jobs, and said it wouldn't “enter into a public debate” with the company's former finance director, who alleged that Mr Jobs had misled him about past stock option

practices at the firm. With its quarterly profit rising by 88%, investors expressed confidence in Apple by pushing its share price past $100.

Carl Icahn's American Real Estate Partners agreed to sell the landmark **Stratosphere casino** in Las Vegas and three other casinos for $1.3 billion to property funds affiliated with Goldman Sachs.

A survey by *Alpha*, a magazine, showed the founders of the three top **hedge funds** had each earned well over $1 billion for the first time last year. Their combined total of $4.4 billion is worth more than Haiti's 2005 GDP.

The **Dow Jones Industrial Average** closed above 13,000 for the first time on April 25th.

Through the floor

Spanish property groups had a terrible week, led by a fall of around 65% in the share price of Astroc, which is based in Valencia. Spain's property boom has lasted for ten years and construction is a mainstay of the economy, but concerns have been raised recently about the excess supply of housing and overvalued prices. See article

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KAL's cartoon

Apr 26th 2007
From Economist.com

Kevin Kallaugher

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The coming wireless revolution

When everything connects

Apr 26th 2007
From The Economist print edition

Information technology has nothing to lose but its cables

THE wireless was once a big, wood-panelled machine glowing faintly in the corner of the living-room. Today's wireless device is the sleek mobile phone nestling in your pocket. In coming years wireless will vanish entirely from view, as communications chips are embedded in a host of everyday objects. Such chips, and the networks that link them together, could yet prove to be the most potent wireless of them all.

Just as microprocessors have been built into everything in the past few decades, so wireless communications will become part of objects big and small. The possibilities are legion. Gizmos and gadgets will talk to other devices—and be serviced and upgraded from afar. Sensors on buildings and bridges will run them efficiently and ensure they are safe. Wireless systems on farmland will measure temperature and humidity and control irrigation systems. Tags will certify the origins and distribution of food and the authenticity of medicines. Tiny chips on or in people's bodies will send vital signs to clinics to help keep them healthy.

The end of the line

The computing revolution was about information—digitising documents, photographs and records so that they could more easily be manipulated. The wireless-communications revolution is about making digital information about anything available anywhere at almost no cost. No longer tied down by wires and cables, more information about more things will get to the place where it is most valuable.

For the moment, the mobile phone is stealing the show. It is evolving from a simple phone into a wallet, keychain, health monitor and navigation device. But as mobile-phone technology matures, even more innovation is taking place in areas of wireless that link things only metres or millimetres apart.

For that, thank the cross-breeding of Marconi's radio and the microprocessor. Etched into silicon, the radio is starting to benefit from the dramatic decreases in size and cost and the huge increase in performance that have recently propelled computing. Satellite-navigation chips today cost as little as a dollar apiece. Radio-frequency identification (RFID) tags can be made so tiny that they fit into the groove of a thumb-print. When power can be wirelessly routed to such devices, something that is not far off, all the pieces will be in place.

Wireless brings countless benefits, as our special report in this issue describes. Devices and objects can

be monitored or controlled at a distance. Huge amounts of data that were once impossible or too expensive to collect will become the backbone of entirely new services. Wireless communications should boost productivity just as information technology has.

Imagine how wireless communications could change motoring. Carmakers are starting to monitor vehicles so that they know when to replace parts before they fail, based on changes in vibration or temperature. If there is a crash, wireless chips could tell the emergency services where to come, what has happened and if anyone is hurt. Traffic information can be instantaneous and perfectly accurate. They administer tolls based on precise routes. One American firm leases cars to people with bad credit who cannot get a loan, knowing that if payments are missed it can block the ignition and find the car to repossess it. British insurers offer policies with premiums based on precisely when and where a person drives.

Of course, plenty of work will be needed before wireless communications can realise their promise. The first obstacle is novelty. As is usual in the early days of a new industry, all kinds of proprietary systems abound, many of them built from scratch—rather as early computer hackers fiddled with their Altairs in the mid-1970s. Until common standards and protocols emerge for machine-to-machine and wireless sensor communications, costs will be a problem.

It is not yet clear who will bang heads together to set standards. Today's mobile-phone businesses may be too busy getting people to talk to bother much about talking machines. Sony Ericsson and Nokia, two giants of the mobile-phone industry, have in recent years sold their machine-to-machine divisions. Mobile operators see the new field as such a small part of their overall business that it gets relegated to the back-burner. That has left an opening for fleet-footed firms from computing, as well as industrial conglomerates, such as Samsung, Philips, Honeywell and Hitachi. Just this week, General Electric's sensing division said it wanted to use wireless sensors in industries as diverse as drugs and petrochemicals.

Government will play a crucial role, not least because radio spectrum will be in short supply. That makes it more important than ever that the airwaves are sensibly allocated according to the ability to pay. Special “reserves” and unlicensed spectrum could be put aside for emerging technologies that lack financial or political clout. And politicians and business people would do well to keep an eye on the health risks of electromagnetic radiation. No serious evidence yet suggests it is a danger—but the nonsense over genetically modified foods shows how much a new technology needs popular approval.

Change is in the air

A greater concern in the long term is privacy. Today's laws often assume that privacy is guaranteed by a pact between consumer and company, or citizen and state. In a world where many networks interconnect on the fly and information is widely shared, that will not work. At a minimum, wireless networks should let users know when they are being monitored.

But for the moment the danger is surely too much regulation, not too little. It is hard for anyone—politicians most of all—to picture how wireless will be used, just as it was with electric motors and microprocessors, two earlier stand-alone technologies that have been built into a plethora of devices. Wireless technology will become a part of objects in the next 50 years rather as electric motors appeared in everything from eggbeaters to elevators in the first half of the 20th century and computers colonised all kinds of machinery from cars to coffee machines in the second half. Occasionally, the results will be frightening; more often, they will be amazingly useful.

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Gordon Brown

Brace yourself, Britain

Apr 26th 2007
From The Economist print edition

Until he says what he wants to do, Britons are right to be apprehensive about their next prime minister

Murdo Macleod

Gordon Brown

IT IS all over bar the shouting, and there is likely to be precious little of that. David Miliband, the last semi-plausible challenger to Gordon Brown for the Labour Party leadership, has ruled himself out of the race. If the party gets an even more titanic drubbing than the polls predict in the local and regional elections on May 3rd (see article), it is just possible that some serious contender could be pressed to run against Mr Brown. But don't count on it. Mr Brown should be Britain's prime minister by July.

Two questions flow from this. The first—and easiest to answer—is whether this is a satisfactory way for power to change hands. The answer is no, for everyone's sake. Mr Brown inherits the crown he has coveted for so long in the worst possible way at the worst possible time. No vote will sanctify this shift in power—there will be no general election to draw the party together against its rivals, no party contest to make candidates define and test their ideas. The most likely winners from the strange interregnum between early May (when Tony Blair is expected to announce his resignation) and the end of June are the Conservatives, now eight or nine points ahead in the polls.

The more difficult question is what sort of leader Mr Brown will make. It should be easy to say, for his ten-year record as chancellor of the exchequer is there. A lucky general, he built on his Tory predecessors' sound foundations, benefited from low inflation round the world and presided over a long period of sustained growth. A smart general, he gave the Bank of England independence to set interest rates and kept sterling out of the euro. A meddlesome one, he increased regulation and made the tax burden heavier and more complicated; and the public finances are in worse shape than they should be after years of economic expansion. A divisive one, he has scared many of his allies and his civil servants, with one former cabinet secretary even publicly deploring his “Stalinist” ways.

Things can only get bitter

If the aim behind this and many other attacks on Mr Brown has been to suggest that he is somehow not qualified to be prime minister, then, as far as this newspaper is concerned, it has failed. Mixed though his chancellorship has been, his stewardship of such a large part of government means he deserves his chance. Put Mr Brown on an international stage—like the recent IMF meeting—and he will more than hold his own. A hard-working, clever man (with deeply held views about poverty, injustice and Britain's

heritage), his claim to the top job is even buttressed by those tales of Stalinist brutality. “Heir apparent” is one of the hardest roles in politics, but Mr Miliband is merely the latest whelp to limp away.

Yet being qualified for the job does not necessarily mean he will be any good at it. Mr Brown remains a surprisingly enigmatic and unloved figure (see article). The worries about him are broadly of two sorts. The first, which he cannot do that much about before he takes over, has to do with his management style. The second, which he should tackle rapidly, has to do with telling us what he thinks.

Becoming prime minister will surely demand that Mr Brown changes the tribal and close-to-the-chest way that he does business. At the Treasury, which stands somewhat detached from the day-to-day bustle of many other departments, that approach may have worked. But at Number 10 (and even more in foreign affairs) he will deal with all sorts of high-profile crises on the hop. He must show he is prepared to trust a wider group, reach decisions faster, let others take responsibility and, when he and they occasionally fail, be prepared for once in his life to admit it.

It is hard to see how Mr Brown can prove his capacities in this respect before July. One guide will be how he pulls together his party. The Blair-Brown tussle may have ended, but there are plenty of Blairites left to placate. Mr Brown is known to be an unforgiving enemy, and his opponents have a way of ending up in the political wilderness. He should send out credible signals that he intends to rely not just on his political protégés but also on others who have not been fans.

Guard the centre

But the main priority now is to reveal more—much more—about what he actually believes in. Excuses exist for his reticence: this is a resolutely private man (at least until recent ill-judged attempts at rebranding him as a youthful arbiter of popular culture); as Mr Blair's ally and rival, Mr Brown has had to duck and weave to secure support. But it is still worrying that his position on public-service reforms, the domestic battleground of our times, is so cloudy. Mr Brown has let it be understood from time to time that he was not especially keen on some of Mr Blair's market-based reforms in health and education. But if he has a detailed alternative version, he has not shared it with the public. Now would be a good time to make explicit a commitment to increasing competition and choice.

The worry is that in this and many other debates Mr Brown is more likely than Mr Blair to put equity above efficiency, and centralisation above devolved control, in an attempt to ensure what he sees as fairer outcomes for all. He certainly understands markets intellectually; but he is peculiarly apt to see (and want to fix) market failures everywhere rather than let entrepreneurs get on with it. And at a time when Britain could use some plain, un-headline-grabbing competence, some of his pet programmes—tax credits, for example—have been spectacularly poorly run.

Mr Brown may think he has time to unveil his thoughts—or even just that he knows best. The fact that so many independently minded voters are wary of him indicates otherwise. If he deserts the centre ground, there is now, belatedly, an electable alternative in David Cameron's Tories. It matters also that Mr Blair, whose intuition complemented Mr Brown's caution on their better days, will no longer be around. Without him, Mr Brown could prove to be, like Paul Martin of Canada, an overpromoted finance minister with little gift for the broader canvas. If so, his tenure at Number 10 will be a good deal shorter than it was at Number 11.

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France's presidential election

It's Sarko v Ségo

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From The Economist print edition

The candidates must talk more about their policies than their personalities

AFP

THERE are two big reasons to welcome the outcome of the first round of the French presidential race on April 22nd. First, the eagerness of voters led to an exceptionally high turnout of 84%, testimony not only to a vibrant democracy but also to the fact that French people see this election as critical to their future. And second, a sharp drop in support for the far right National Front leader, Jean-Marie Le Pen, and for a hotch-potch of extreme left and single-issue candidates has pulled French politics firmly back into the mainstream.

With the elimination of the centrist François Bayrou, France faces on May 6th a clear choice between the competing visions of Nicolas Sarkozy on the right and Ségolène Royal on the left. Both are following the usual French political rule: spend the first round securing your base, then tack frantically back towards the centre in the second. The electoral arithmetic and the early opinion polls both favour Mr Sarkozy. The candidates have their eyes firmly pinned on Mr Bayrou's first-round vote of 18.6%. But Mr Bayrou is playing hard to get, choosing this week to endorse neither. In short, all is still to play for in the second round (see article).

In winning almost 26% of the vote in the first round, Ms Royal has done far better than her critics, the severest of whom are in her own Socialist Party, feared. By talking tough on such issues as crime and national identity, she has somewhat broadened her appeal. Nor is it fair to decry her as a conservative who is against all change: on election night, she spoke only against reforms that were too brutal. But in the vital area of economic policy, she still does not offer France the radical reforms that it must undergo if it is to raise growth and cut unemployment: she is too inclined to spend money, to protect the interests of insiders and to coddle the public sector.

Mr Sarkozy, in contrast, has made clear in recent years that he believes France needs a substantial break (in his favourite word, *rupture*) with the past. He thus offers the only hope of delivering the medicine that the sickly economy badly needs. Yet in the campaign so far he has tended to be wary of sounding too radical or too specific in his commitments to reform. Instead, he has fallen back on such traditional bad habits as backing protection and state intervention, promising a strong industrial policy and bashing the European Commission (for promoting competition) and the European Central Bank (for letting the euro rise).

In search of a mandate

Mr Sarkozy's supporters claim that such language reflects French voters' instinctive mistrust of economic

liberalism. They add that his protectionist talk often concerns areas that fall outside national competence, being matters for the European Union—whereas his commitment to liberalise France's gummed-up labour market is something he could deliver quickly. This is too casuistical. Repeated experience has shown that any serious attempt at liberalisation in France is bound to provoke massive protests in the streets. That happened to President Jacques Chirac, and he backed down. If it happens to President Sarkozy, he will find it a lot easier to muster the political strength to face down such protests if he has secured a clear mandate by spelling out what he plans to do before May 6th, instead of introducing reforms on an unsuspecting public by stealth.

One bright French politician summed up this awkward dilemma neatly in a recent book. “Lies during the campaign”, he averred, “come at the price of immobility in government.” The book is called “Témoignage”; and the man who wrote it is Nicolas Sarkozy.

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European banking consolidation

Braveheart

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Satoshi Kambayashi

The biggest banking battle ever is just the thing to wake up the industry in Europe

IT STARTED with the faint sound of pipes and drums wafting across the North Sea, as Royal Bank of Scotland prepared for battle. On April 25th artillery from Edinburgh rained down on the Netherlands.

ABN AMRO, a 183-year-old Dutch bank, thought it had escaped break-up at the hands of RBS and others on Monday, when it accepted a neat-and-tidy €66 billion ($90 billion) takeover from Britain's Barclays and agreed to sell its subsidiary in Chicago to Bank of America. But what for two days was trumpeted as the biggest banking deal in history was trumped on Wednesday by a proposed €72 billion bid from RBS, Spain's Santander and Fortis of Belgium. The offer is conditioned, but it sets the field for banking's biggest-ever takeover contest. It should send a healthy jolt of fear through the financial capitals of Europe.

When it comes to cross-border takeovers, banking has for too long been a cosseted business. And nowhere more so than in “old” Europe, where only 15% of banks are foreign owned. Unlike other industries, banks have largely been spared the embarrassment of hostile bids, private-equity raids and needling shareholders. The European Commission has found, to its frustration, that only one in five banking deals between 1999 and 2004 stretched across a border, compared with almost half in other industries.

This is partly because European banks, understandably, like staying in their cosy, less-than-competitive home markets: customers are more likely to divorce than switch banks. Mostly, the banks have balked at the regulatory hassles that come with cross-border adventures. And they have been protected by regulators who put notions of national glory ahead of any concern for their citizens' bank charges. To their shame, some regulators have discouraged foreign interlopers. The Dutch regulator made it abundantly clear that he was against the bank being broken up by foreigners.

Orange tartan

Such complacency conspires against an efficient financial system and Europe deserves to be shot of it. ABN gives three reasons for hope. First, it has shown that banks are vulnerable to activist investors. Where once the poorly performing ABN would have muddled through, it has fallen partly because of a London-based hedge fund, the Children's Investment Fund (TCI), which has lobbied for a break-up or a sale. Such rabble-rousing is remarkable—especially because TCI owns only a tiny stake in ABN. Hedge funds, quick learners all, have leapt onto ABN's share register since the first whiff of conflict. They are likely to be seduced more by the money on offer than by any sentimental attachment to ABN.

Then there is the glint of aggression among the banks. Barclays has a new competitive edge under John Varley. RBS says its bid for ABN is not hostile. But ABN's managers, keen to tie a knot with Barclays that would keep most of the franchise in place and the headquarters in Amsterdam, have doubtless found it unwelcome. Even so, ABN has rightly opened its books to the consortium, thus making the unsolicited bid a bit easier to pull off. RBS, under Sir Fred Goodwin, is one of the few banks to have carried out something almost as bold when it snagged National Westminster Bank in a surprise assault in 2000. Now that Santander and Fortis have joined in this venture, other banks might be more abrasive too.

The last sign of hope is evidence that at least some cross-border banking deals work handsomely. Santander has so far made a good fist of its acquisition of Abbey, a British high-street lender. UniCredit of Italy is doing well with Germany's HVB. Inevitably, a Barclays megabank, or a bigger RBS et al, will put pressure on their rivals to consolidate and grow.

Not all takeovers create better banks. ABN's malaise was partly down to a poor international strategy. The point is that it must be up to the banks themselves to decide whether to venture abroad. That judgment is not for politicians nor, except where the system is at risk, is it for regulators.

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Nigeria

Will Africa ever get it right?

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Panos

Nigeria's latest shameful and rigged election does not mean that all of Africa is hopeless

Get article background

IF NIGERIA, Africa's most populous country, is anything to go by, the sub-Saharan continent of some 800m people may be doomed to spend another generation or so in misery. Nigeria's recent bout of elections has been a fiasco (see article). The country is rich in resources—the United States may soon be getting a tenth of its oil from it—but most of its 140m-odd people languish in poverty. And yet their rotten leaders presume they have some kind of right, by virtue of their country's size and natural wealth, to strut the global stage as leaders of the continent. How wrong they are. Nigeria's new president, Umaru Yar'Adua, is tainted from the start. The elections at all levels should be held again—but of course they won't be. Any notion that Nigeria should be taken seriously as a continental spokesman, let alone a model, should be laughed out of court.

But is Nigeria typical of Africa? And does its dismal performance as a would-be democracy cast a blight across the rest of Africa? The answer to both questions is no. Nigeria is not Africa. Over the past decade or so, the rest of the continent has on the whole been taking modest, belated but encouraging steps towards greater prosperity, security and democracy.

To be sure, there is a very long way to go. The African backdrop is still fairly bleak. Many features of this latest Nigerian farce, namely corruption and mismanagement, still scar many other parts of Africa. The post-colonial continent has hitherto been a colossal flop. The killer comparison is with Asia, where many countries suffered from the same colonial humiliations and rapacity that independent Africa customarily blamed for its early failings. According to the World Bank, real income per head in the 48 countries of sub-Saharan Africa between 1960 and 2005 rose on average by 25%, while it leapt 34 times faster in East Asia; countries like South Korea and Malaysia were once as poor as Ghana and Kenya. The excuse of colonialism wore out at least a generation ago—and Africans know it.

But many lessons have been learnt, even—believe it or not—in Nigeria, where the macroeconomic picture is actually not too bad. On Africa's economic front, the deadening left-wing nostrums of the early days, dressed up in the verbiage of “African socialism”, have long since been discarded. Private enterprise and freer markets have been given more of a head. In politics, the once-predominant belief in a one-party system has faded, if not fizzled completely. Remember, it was only in 1991 that, for the first time since independence, the leader of any African country (not counting the Indian Ocean state of Mauritius) was peacefully voted out of office—in Benin, as it happens. Since then, many African countries have followed suit. Multi-party elections, though often very messy, have become far commoner.

It's not all bad

This month the IMF's latest figures give further cause for hope. For the third year in a row, sub-Saharan African countries grew on average by around 6% and may soon hit the 7% mark predicated by the UN in its call to halve Africa's poverty rate by 2015. True, this comes on the back of high oil and other commodity prices. But non-oil African countries are recording similar rates of growth. Such figures are modest by Asian standards. But they are going the right way—and quite fast.

The horrors of Africa still, of course, persist. It hosts most of the world's worst wars and disasters. Congo, its second biggest country in land mass, is fraught with tension and violence. The government of Africa's biggest country, Sudan, is still behaving appallingly in Darfur. Somalia (see article) is a failed state whose latest spasm of civil war could infect the Horn of Africa. Robert Mugabe's Zimbabwe is a wart on the face of southern Africa—and deters many who might invest in the surrounding region.

An abiding failure of Africa is the reluctance of relatively decent leaders to club together to shame the really bad ones out of office. Zimbabwe's case is the most egregious, disgracing the countries nearby, especially South Africa, whose leaders hide behind a misguided sense of past comradeship and racial solidarity. In Nigeria's case, the African Union should waste no time in denouncing the election as fraudulent—and freezing Nigeria's incoming government out of Africa's leading councils. Alas, that is unlikely to happen. Nigeria may seem too big, its peacekeepers too badly needed, for the rest of Africa to cold-shoulder it.

How can the outside world help Africa? There is no easy answer. Western countries, vital donors of aid, should make it clear they will give more help to countries whose governments are relatively clean and efficient—and hold fair elections. The latest aid-givers' consensus is to identify “good” countries, still quite a small bunch, and let them spend the cash as they see fit. Yet time and again, good guys—most recently, Ethiopia's Meles Zenawi and Uganda's Yoweri Museveni—slip back into old despotic ways, putting aid-givers into a quandary. By punishing governments, are they not hurting the innocent poor? In the end, Africa must help itself, just as Asia has. Then the outsiders will pile in, with investment that is better than aid at creating wealth. Even into Nigeria.

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Russia

Yeltsin's moment

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Corbis

It was messy, but he gave Russia a future that Vladimir Putin is now putting in jeopardy

Get article background

THE Russia where Boris Yeltsin was buried this week is a different place from the country where he assumed power nearly 16 years ago. Statistics tell part of the story. In 1992, the first year that such a calculation could be made, Russia's GDP—taking the rouble figure and dividing it by the average, market-determined exchange rate—was less than $90 billion. Last year the finance ministry reported a figure approaching $1 trillion. Over the same period foreign-exchange reserves have jumped from a paltry $60m to $300 billion.

Figures can mislead. But they say something about the pathetically weak terms on which the new Russian democracy, exhausted by communist mismanagement, entered the world economy; and about the transforming effect of market economics, however badly practised, on Russia's global standing.

It is not just the numbers that have changed. Although the Yeltsin era certainly saw its share of human-rights abuses (see article), it was by Russian standards a time of extraordinary liberty. And though many Russians remember the Yeltsin years as a time of chaos and decline, this was in fact the moment Russia used its new freedom to leave the dead-end of communism and reinvent itself as a country with a future. That freedom is, alas, now in peril. Only last week, the break-up of small protests in Moscow and St Petersburg gave a depressing sign of how far the country has moved backwards under Mr Yeltsin's hand-picked successor, Vladimir Putin.

Despite the respectful way in which he has lauded and buried his old mentor (see article), Mr Putin has encouraged the idea that the “order” he personifies is vastly preferable to the chaos, uncertainty and licence of the Yeltsin years. It follows that niceties such as legal process and a real opposition are things that Russia can well do without. Given that most of Russia's growth has taken place on his watch, Mr Putin can claim (with truth, unfortunately) that most of his compatriots prefer the “bread” of prosperity to the “circus” of democracy. And many non-Russians would sympathise with that; investors never knew what to make of Mr Yeltsin's erratic, ebullient personality and many instinctively preferred the polished charm of the Kremlin's previous master, Mikhail Gorbachev.

But think harder about the changes that Russia has undergone, and a different conclusion emerges. Mr Yeltsin's achievements have to be measured not against the ideal state of affairs which many of his own supporters expected but against the real danger at that time of an uncontrollable collapse in Russia's society and economy. Albeit imperfectly and in fits and starts, his reforms saved Russia from meltdown. The growth that Russia now enjoys is not just the result of a surge in energy prices—and the fact that at least a part of the oil bounty is being recycled into the economy owes a lot to the foundations of a market

system that were laid in the Yeltsin years.

A large tumbler of freedom, with a vodka chaser

Mr Putin's performance in office, by contrast, can and should be judged by a more rigorous standard. A government that is sitting on a handsome budget surplus and a huge foreign-exchange kitty has options that were not available to Mr Yeltsin's struggling reformers. For example, a rich government can, in theory, fight corruption far more effectively than one which hardly has the money to pay judges or policemen. Yet by most estimates, corruption is getting worse, not better.

A rich government, you might think, could allow itself the luxury of tolerating and even encouraging a vigorous, fearless opposition far more readily than the near-bankrupt, embattled administration which Mr Yeltsin formed. Yet the margin for real dissent—whether on the street, in parliament or in the media—is growing narrower all the time. And this has practical consequences. A Russia where nobody dares to criticise the president ultimately risks forfeiting the very prizes of order and prosperity which authoritarian rule promises to deliver. That, surely, is Boris Yeltsin's posthumous message to his successor. Mr Putin would do well to take heed.

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On England's regions, Nicolas Sarkozy, Gary Hart, Heathrow, Don Imus, global warming

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St George's new dragon

SIR – The British government will undoubtedly press ahead with some kind of so-called devolution for England ("Back in England, something stirs", April 14th). But the impetus for this comes from the European Union's regional policies. The EU's map of the regions divides Britain into London (which now has its elected Assembly), Scotland (which has its Parliament), Wales (its Assembly) and eight English regions. England's North East rejected a proposed regional elected assembly in 2004 and the government then lost the nerve to hold referendums on elected assemblies in other regions, as you reported. However, the wishes of voters have simply been ignored and these assemblies remain in existence as unelected bodies.

People in the North East are annoyed with their unelected Assembly, which is gaining power over issues that used to be dealt with by elected local councillors, such as planning. There is no desire in England for this kind of devolved power. What the English are coming round to is the idea of a separate parliament for England as a whole. They are tired of paying for Scotland and disgruntled at the fact that Scottish MPs can vote on matters that affect England only and not their own constituencies. Yet it is likely that English voters will be ignored again and an English parliament will not be offered to us, for the simple reason that it does not fit the EU's requirements.

Judith Wallace
Whitley Bay, North Tyneside

SIR – It would seem that the devolutionary process in Britain is being carried out in a most uneven and irregular manner (something for Scotland, less for Wales, nothing for England). Someone should have taken a hard look at setting up a federal union, with taxation and business incentives addressed regionally. The English regions could form provinces to provide a balance to their Scottish, Welsh and Northern Irish counterparts and to offset arguments about a monolithic England dominating the rest. An examination of British federalisation would make an interesting subject of study, as would an analysis of the role of a dismembered Britain in world affairs.

David Clark
Saanichton, Canada

SIR – Having worked with the Regional Development Agencies as a minion at the Department of Trade and Industry, I have come to the conclusion that the government's policy on England's regions will fail. England does not have regions that are comparable to, for example, Germany (Bavaria) or Italy (Tuscany). The creation of English regions appears to be based on little more than the banding of franchises for regional television.

Moreover, local rivalries within regions can be intense. As a Scouser in exile, I cannot picture a world where Liverpool would tolerate being ordered around by Manchester—or vice versa. And most of the regions simply have no traction with the people they are purporting to serve. For instance, if you were to ask the citizens of Nottingham where their regional identity lay, I suspect the answers would mainly be Nottingham or Nottinghamshire, with a few hardy eccentrics calling themselves Mercians. You would have to look hard to find anyone who thought of themselves as an East Midlander.

Steven Richmond
Harpenden, Hertfordshire

Grand designs

SIR – What a grandiose cover in support of Nicolas Sarkozy you ran (April 14th). It was intriguing to see "France's chance" depicted as Napoleon crossing the Alps on a white steed in Jacques-Louis David's famous painting. Yet historians have established that, contrary to David's propaganda, Bonaparte did not cross the mountains over the Grand St Bernard pass "calm, on a fiery horse". He actually rode a stubborn mule, which is maybe a more accurate representation of difficulties to come for Mr Sarkozy.

Éloi Laurent
Paris

Someone who was there

SIR – Were Lexington not so insistent on mischaracterising an ancient campaign of mine, I would refrain from responding (April 14th). But, alas, to write that my presidential campaign of 1984 "surged to prominence...only to collapse in confusion" is to misstate the facts, yet again. To clarify the history: as a long-odds dark-horse candidate, I won more than 25 primaries and caucuses, including all of New England, Florida and parts of the South, seven of nine Super Tuesday states, and all the western states, including the largest, California. Those victories produced 1,200 delegates to the Democratic National Convention and, had it not been for non-elected "super delegate" party figures, could well have produced a nomination against almost insurmountable odds. So much for collapsing in confusion.

Gary Hart
Kittredge, Colorado

Red-eye blues

SIR – As one who has to fly through Heathrow more often than he would like, I know well the frustrations of its passengers ("Landing flap", April 7th). But as bad as it is for those whose trips begin or end in London, it is even worse for transit passengers. To get off an overnight transatlantic flight and have to stand in line to get into the departure area for another flight with the same airline in the same terminal is insane. To then have to stuff all carry-on material into one bag for X-ray inspection is nothing less than sadistic. I now try and avoid connecting through Heathrow whenever possible.

Animesh Ghoshal
Des Plaines, Illinois

Meanings

SIR – The opening paragraph of your article on the Don Imus affair cheerfully translated the meaning of "nappy-headed ho's" for the benefit of your "non-American readers" ("A double standard?", April 14th). This implies that most Americans are accustomed with the term, used by Mr Imus to disparage the women's basketball team at Rutgers university. They are not. Those words form part of a sub-culture that a majority of Americans are not familiar with and we do not use them in everyday conversation.

Richard Feyl
Salem, Massachusetts

More green incentives

SIR – I was jolted awake from my pleasant Sunday afternoon read of your article on chopping down trees to help fight global warming by the following excerpt: "the model calculated that the atmosphere's carbon-dioxide levels would roughly double by 2100...but it would, paradoxically, make for a colder planet. That is because brighter high latitudes would reflect more sunlight in winter, cooling the local environment by as much as 6°C" ("A new tree line", April 14th). Wait a minute: double the amount of carbon dioxide and a colder planet? This means that "albedo" (the tendency to reflect rather than absorb light, the Earth's surface reflectivity in this case) has much more of an impact on temperatures than greenhouse gases do. It leads me to conclude that to reverse the global warming trend we might seriously consider tax breaks for people who own houses with white roofs.

Shirley Goldstein
Los Angeles

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Gordon Brown

The day of the spider

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Getty Images

One of Britain's most impressive politicians is poised to become its next prime minister. Why is the country less than gleeful at the thought?

Gordon Brown

ANY week now, Tony Blair will announce the date on which he is going to resign. No one knows what the date will be; but equally, no one doubts that Gordon Brown, the chancellor, will succeed him. David Miliband, the environment secretary and most plausible alternative, says he will not run against him. Two candidates from Labour's left have garnered only token support. Nothing, it seems, will prevent Mr Brown from becoming leader of the Labour Party and leader of his country two months from now.

Yet beyond his loyal band of supporters, few people in Britain feel enthusiastic about the prospect. How is he so entitled, yet so unloved? Part of the answer lies in his personality: his unbending ambition, power of concentration, moral certainty and sheer political grip. Part goes back to 1992, when Labour last lost a general election and learned a crucial lesson from it. And a third part lies in how Mr Brown has worked with his colleagues—above all, with Mr Blair—and in his record as chancellor of the exchequer.

A primary-school teacher reportedly said of her pupil, the young Brown, “I couldn't keep Gordon in work. I was always giving him more to do.” The son of a Presbyterian minister, he imbibed the Protestant ethic—and an acute awareness of inequity and injustice around him—with his mother's milk. Aggressively bright, Mr Brown entered Edinburgh University to read history at 16, its youngest student since the second world war. At 17, an eye injury kept him flat on his back and brooding for months, but a year later he was immersed in his studies, and in politics. Elected rector of the university at 21, he made life miserable for its hierarchy for three years by criticising university practices in minute and public detail. Whitehall departments were later to receive the same treatment.

His doctoral thesis was on James Maxton, the idealistic but ultimately unsuccessful founder of the early Independent Labour Party. After it he taught in Glasgow, worked in television, joined the Transport and General Workers' Union, perfected the catchy sound-bite—along with worthier perorations on unemployment and the like—and steadily shouldered his way to the centre of the Scottish Labour establishment. In 1983 he was elected to Parliament for Dunfermline East, near Edinburgh. And at Westminster, already a seasoned Labour operator and considerable tactician, he met an eager newcomer to politics, Mr Blair. From that encounter sprang one of the strongest yet strangest alliances in British politics.

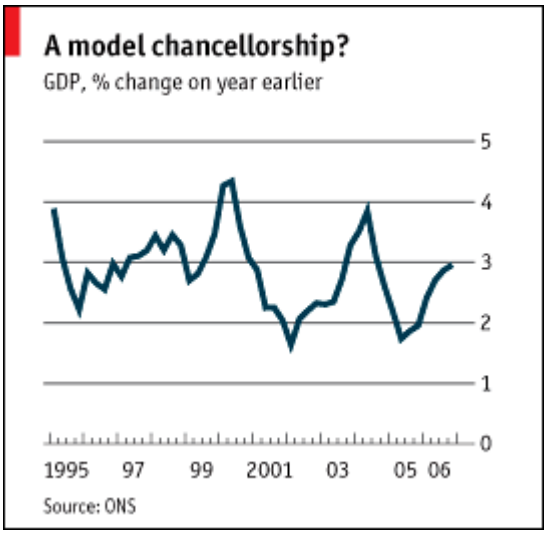
At first Mr Brown was the senior partner. His ideas—and indeed Mr Blair's—about what moved British politics were formed in the desperate days following Labour's fourth defeat in a row in 1992. He observed

that even a fag-end Tory government was preferred to Labour, and calculated that it would always be so as long as Labour was associated with high taxes and wild spending. Mr Brown, by then shadow chancellor, saw that Labour must side with the industrious and ambitious, as the Tories had done, to win power.

To that end, he put Maxton's redistributive ideals on the back burner and ruthlessly cut back the grandiose spending plans of his shadow-cabinet colleagues. Working closely with Mr Blair, he began to eradicate every promise that suggested Labour was out of touch with the sentiments of middle England, such as the enforcement of the union closed shop. The phrase “tough on crime, tough on the causes of crime”, so brilliantly popularised by Mr Blair, was actually coined by Mr Brown. Much of this outraged senior colleagues, among them John Smith, the party leader. Then Mr Smith died unexpectedly in 1994, leaving the leadership open.

Mr Brown, who saw himself as the intellectual and political heavyweight of the two, assumed that Mr Blair would not run against him for the leadership. But he had failed to notice that his own high-handed curbing of Labour's big-spending instincts had cost him support in the parliamentary party and that Mr Blair was playing well with the press. Indeed, polls suggested he was unstoppable. When Mr Blair decided to run for leader, Mr Brown had to choose between opposing him and risking probable defeat, or cutting a deal. Both men were keen that their modernising work should not be spoilt by personal rivalry. This had happened 20 years earlier, when the brilliant trio of Denis Healey, Roy Jenkins and Anthony Crosland cancelled each other out in the leadership race after Harold Wilson resigned in 1976, allowing through dull Jim Callaghan.

The power-sharing deal that Mr Brown and Mr Blair reached in 1994 has been analysed to death. No one except its authors really knows what it consisted of. But no attempt to explain why Mr Brown, unloved though he may be, is poised to become prime minister would be complete without disinterring some of its bones.



There is no doubt that Mr Brown secured virtually total power over economic strategy—including competition policy and pensions and benefits reforms, as well as the broad direction of foreign aid. It is less clear what rights, if any, he secured over the management of key public services such as health and education, which were to become a battleground with Mr Blair. But his dominant role blocked other politicians from getting a hold on power, and made him the heir presumptive.

An imperial Treasury

When Labour won a landslide victory in May 1997, its first dramatic step was taken by Mr Brown with barely a nod towards Mr Blair. Giving the Bank of England independence to set interest rates remains his boldest and most successful stroke. The Treasury set an inflation target that looked tough, but did not force the bank to drive rates up to growth-sapping levels. It was one of several judgments in the new monetary regime that Mr Brown—with Ed Balls, his closest adviser—got right. He had learned from previous Labour governments that nothing could be accomplished without macroeconomic stability.

Relieved of responsibility for setting interest rates, the Treasury ranged more widely across Whitehall. In the past it had focused on trying to control spending; under Mr Brown it began to analyse everything the spending departments did, setting them targets to justify their funding.

Mr Brown's twin mantras were “prudence with a purpose” and “no investment without reform”. Taxpayers were supposed to be reassured that once Labour started spending, the Treasury would ensure that every pound went where it could do most good. But the target culture required a degree of centralisation that discouraged initiative, from the heads of big departments down to junior hospital managers and head teachers. It meant that, too often, managers ended up trying to hit targets rather than running their operations. It continually irritated cabinet colleagues, who resented Treasury officials dictating to them. And it also exacerbated Mr Brown's growing strife with Mr Blair.

In Labour's first term, from 1997 to 2001, the two men just about rubbed along. Mr Blair was constantly surprised by Mr Brown's unwillingness to tell him what he was doing: the prime minister struggled to

discover the contents of budgets a few hours before they were delivered. But apart from some differences over the euro (Mr Blair was keen to sign up, Mr Brown much less so), actual clashes over policy were fairly rare. After the first two years of budgetary stringency, Mr Blair's main priority was to get Mr Brown to loosen spending for shabby schools and run-down hospitals before the voters noticed that Labour had done nothing much. Mr Blair went along with targets, partly because he had yet to develop his own vision of how to reform public services.

By the time Labour won its second landslide victory in 2001, things were changing. Thanks to a growing economy and the myriad stealth taxes that Mr Brown had enacted, revenues had been pouring in. The Treasury was pushing ahead with a pet scheme of Mr Brown's: uniting the tax and benefit systems to redistribute money from rich to poor and reverse worsening income inequality in Britain. But Mr Blair was exasperated with what he saw as the glacial pace of change in public services. And though he himself had ripped up most of the structural reforms brought in by the Tories to create more competition in health and education, by 2001 he had decided that competition might be important after all.

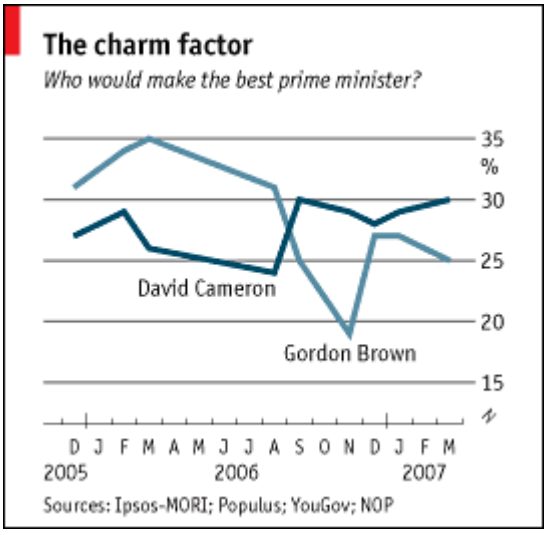
Having manoeuvred Mr Brown into committing the government to reach continental-European levels of health spending by 2005, Mr Blair and his radically minded health secretary, Alan Milburn, set about creating a National Health Service that would increasingly become a commissioner rather than a monopoly provider of services. The first big step was to be the setting up of semi-autonomous “foundation” hospitals, free to borrow on their own balance sheets if they wanted to expand.

Mr Uncongeniality

It is hard to say what riled Mr Brown more: the threat to the Treasury's financial discipline, or the speed with which Mr Blair sought to transform the NHS into something that, in his view, would no longer be a bastion of fairness. Perhaps it was just that Mr Brown thought that Mr Blair was reneging on their deal.

In a speech in 2003 called “A Modern Agenda for Prosperity and Social Reform”, Mr Brown tried to set out the role and limits of markets in a modern economy. “The free market position”, he said, “which would lead us to privatised hospitals and some system of vouchers and extra payments for treatments, starts by viewing health care as akin to a commodity to be bought and sold like any other through the price mechanism. But in health care we know that the consumer is not sovereign.”

It was a critical moment in Mr Brown's relationship with Mr Blair. In effect, the chancellor suggested he would oppose the prime minister if the latter were to follow his most radical instincts in the reform of public services. And by making it clear that in the tussle between equity and efficiency he stood nearer the former, Mr Brown also drew a distinction between his own deep roots in Labour tradition and Mr Blair's more contingent relationship to the party.



Yet Mr Brown has never quite articulated his alternative vision, or had the debate with Mr Blair over public-service reform which that speech and others suggested he wanted. Partly as a result of this unresolved divergence of views, the government poured billions of pounds into health and education long before reforms were in place to improve them.

Having got his way over restricting the financial freedom of foundation hospitals, Mr Brown surprisingly acquiesced in other NHS changes, including the growth of private-sector involvement. So too with university-tuition fees, which came close to bringing Mr Blair down in 2004 because of a backbench revolt. The prime minister favoured letting Britain's underfunded universities charge sharply higher fees and giving students loans to be paid back when they began earning. Mr Brown let it be known that he would prefer a “fairer” tax on graduates, which higher earners would pay at a higher rate (and which would keep most university funding in Treasury hands). But colleagues say he never made the case in cabinet. Instead, he let the revolt build, stepping in to limit the damage only at the last moment.

Were these signs of a deep ideological divide, or the sulky tactics of a man deprived of the top job? Were promises made and broken? Mr Brown and his supporters believe that Mr Blair promised to leave office before the last election, in 2005, making way for Mr Brown. Mr Blair and his supporters retort that, if Mr

Brown had worked with the prime minister rather than against him, the prize would have been his sooner.

Both views should be taken with a pinch of salt. Only twice has Mr Blair contemplated quitting early. The first was in 2003, when he thought that might be the price of getting Mr Brown's support for joining the euro. To his credit, the chancellor turned him down. The second was in 2004 when, loathed for invading Iraq and possibly sobered by heart trouble, Mr Blair announced that he would stand for election a third time but not a fourth.

The truth is that prime ministers go only when their power runs out. The Labour Party's reduced majority in 2005, the long hangover from Iraq and the slide in the polls since then—not a long-ago deal with Mr Brown—are why Mr Blair is on the verge of writing his memoirs now.

The baton passes

What does Mr Brown promise in his place? His main claim to the keys of Number 10 is his management of the economy. Britain has enjoyed 58 quarters of uninterrupted growth, most of them with him, high employment and, until recently, muted inflation. Some of this was due to the sound foundation his predecessors left him and to low inflation worldwide. But economic management is his strongest suit.

Mr Brown's control of the public finances, by contrast, has not been sensible. The early years of tight control gave way in 2000-01 to an explosion in spending that drove up costs across the public services, especially wages. Government expenditure has been pushed from 40.8% in 1996-97 to 42.2% of GDP. Although Britain's fiscal position is still relatively sound, Mr Brown has left the nation's finances less healthy than might have been hoped.

Nor has all evolved faultlessly elsewhere. Mr Brown's tax-credit scheme for poor families, for example, has gone badly wrong. A looming crisis in pensions owes something to Mr Brown's early tax raid on pension funds, and still more to long-term defects in the means-tested approach that he has favoured.

Much of this would be forgiven if he had proved himself a team-player. Yet past and present cabinet ministers and even one of his own permanent secretaries at the Treasury, Lord Turnbull, later head of the civil service, have revealed that he is not. Their criticisms will not keep Mr Brown from the top job, it seems. But unless he heeds them, his time as prime minister could well be turbulent and short.

The main charge against Mr Brown is that he consults only a tiny group of like-minded people who depend on him for position and patronage. Although they are capable and loyal, they rarely challenge each others' views or his. Lord Turnbull recently argued that Mr Brown is suspicious, reluctant to delegate, overcontrolling and contemptuous of competing ideas, especially those of cabinet ministers who he has decided owe their loyalty to Mr Blair.

Such a style of governing may just about be possible from a power base in the Treasury, a department with great intellectual depth which runs according to a set timetable and deals with issues that are often abstract. A prime minister would find such an approach much harder. Problems pour in from all sides and at all hours; decisions must be made quickly. Had Mr Brown served at the Foreign Office or the Home Office—both departments that have to manage crises—he might inspire more confidence now. Despite his decade as the great spider at the heart of government, he may be ill-equipped for what is about to come. And losing his partner in politics of the past quarter-century, whatever their differences, will make it harder for him.

On top of this, Mr Brown's dour public personality (despite the recent attempts to let a warmer side shine through) stands in stark contrast to the informal and warmly communicative Mr Blair. His unreconstructed Scottishness goes down badly at a time when devolved Scots are agitating for more autonomy. Add to that mix the fatigue and over-familiarity that a decade in government has brought: Labour expects a drubbing in the local and regional elections on May 3rd. And its ratings in the polls are invariably worse when voters are asked to choose between Mr Brown and David Cameron, the young Tory leader.

And yet Mr Brown could spring a surprise. Mr Blair, even when suffering from a bout of Mr Brown's worst behaviour, would acknowledge that his ally and rival was a big man—a large personality with a formidable intellect, a huge appetite for work and a high moral purpose.

These days Mr Brown likes to talk about Britishness, which he sees as the fount of shared values that can bind society together. It often sounds a bit stilted. But of one thing Mr Brown is convinced: like him, the British care passionately about fairness. If he is right, and if he can find the words to express it (both big ifs), the voters may in time decide that there is something in this strange, clumsy, powerful champion of social justice that they find, if not likeable, at least admirable.

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Nigeria's elections

Big men, big fraud and big trouble

Apr 26th 2007 | ABUJA, CALABAR AND KANO
From The Economist print edition

The deep rottenness of Nigeria's political system threatens all the economic gains this giant country has made

Reuters

Get article background

EVER since Sani Abacha expired in the arms of two Indian prostitutes, possibly from an overdose of Viagra, in 1998, Nigerians supposed that their worst days were behind them. The “coup from heaven”, as Abacha's death was called, seemed to release the country from three decades of increasingly ruinous military dictatorships that had brought Nigeria diplomatic isolation and economic collapse. In 1999, the country made a fresh start with a new elected civilian administration led by Olusegun Obasanjo, the outgoing president. He has been lauded in the West for his economic reforms and his drive against corruption.

But the organised vote-rigging and fraud that characterised the state and local elections on April 14th, as well as the parliamentary and presidential polls on April 21st, suggest that Nigeria may be sliding backwards again. Nigeria's own independent observers' group has called them a “sham”. The European Union, normally a master of nuance in these matters, baldly stated that the whole electoral process “cannot be considered to have been credible”, and remarked that its report was the most damning it had ever issued anywhere in the world.

The opposition parties have called for a re-run of all the elections. The only people who seem happy with the charade are officials of the inept and craven Independent National Electoral Commission (INEC) and those who appointed them in the ruling People's Democratic Party (PDP). The PDP's presidential candidate, Umaru Yar'Adua, won an astonishing 70% of the vote; but few will accept the result as anything other than a fraud.

The consequences could be extremely destabilising in a country as fragile as Nigeria: a brittle mosaic of about 300 different ethnic groups, equally divided between Muslims, largely in the north, and Christians, mainly in the south. This is a fractious and rancorous polity at the best of times. But with a full-blown insurgency raging in the oil-producing Delta, and relations between Muslims and Christians already tense, the last thing Nigeria needed was a new government that many will regard as illegitimate.

Much protest will take place in the courts, which will proceed at their usual glacial pace. But it will also take other forms. About 200 people were killed during the elections themselves, according to EU estimates. Most of the violence has been directed against institutions that (in popular belief) connived in the results. Several INEC offices were burnt down. In the big cities this week, thousands of police and soldiers were on the streets in armoured cars, ready for trouble. The situation could easily get out of hand.

In many African countries all this might pass without much comment. But Nigeria matters more than most. It is Africa's most populous country, with 140m people, and, after South Africa, the continent's second-biggest economy. It vies with South Africa, too, for diplomatic and military leadership. Its peacekeepers serve throughout the continent; Nigeria provides most of the troops in Darfur, for example. A strong and stable Nigeria has become essential to the project of building an Africa that can solve its own problems.

It is also the continent's largest producer of oil, and the sixth-biggest oil-exporter in the world. It already provides 8.5% of America's imports, a figure that could rise to 10% in a few years' time. Nigeria has been proposed as the answer to the West's concerns over energy security; a dependable oil ally, away from the turbulent Middle East and Venezuela's pesky Hugo Chávez. But given the current state of affairs, the oil price has been edging up all week on fears of worse to come in Nigeria.

The country's boosters had invested heavily in a successful presidential election. They hoped that this ballot—potentially, the first constitutional transfer of power from one civilian administration to another since independence in 1960—would cap the “Nigerian renaissance”. Instead, the country is sliding into grave political uncertainty. How did this happen?

The promise of reform

The answer is to be found largely in Mr Obasanjo's government of the past eight years. When Abacha died, Nigerians looked to Mr Obasanjo—a charismatic Christian, ex-general and former president—as the man to guide them out of the country's mess. He won an election in 1999 and, after a slow start, set about tackling many of Nigeria's long-term problems. And he achieved a good deal.

A team of younger, zealous reformers, dubbed “the seven samurai” by one diplomat, was brought in to overhaul the economy. In particular, they confronted the corruption that had seen Nigeria's leaders pocket, by some estimates, $380 billion of the country's oil wealth since independence, the equivalent of about two-thirds of all the aid given to Africa during that time. Thus the “reform programme” was born.

At the macroeconomic level, Nigeria has been hailed as a success. A forceful former finance minister, Ngozi Okonjo-Iweala, got rampant inflation down to single digits last year and built up foreign exchange reserves that now stand at around $48 billion. The country has been achieving growth rates of over 5% in the past few years. So impressive have the statistics proved to international financial institutions that Nigeria has recently won debt relief, and the country's credit rating is now good enough to let it issue bonds on the global market.

It was the anti-corruption drive, though, that caught the domestic and international imagination. Mr Obasanjo set up an agency, the Economic and Financial Crimes Commission (EFCC), which at first amazed and delighted Nigerians with its success. It was headed by a wiry and energetic former policeman, Nuhu Ribadu, whose hand-picked enforcers have recovered over $5 billion in stolen assets and successfully prosecuted the sort of people, businessmen and policemen, who most Nigerians assumed would forever remain above the law.

This was all impressive stuff. But in other respects Nigeria's old problems remain, and have even worsened under Mr Obasanjo. For a start, much of the macroeconomic success is due to the high price of oil; it has made little visible difference to Nigerians' wretched daily lives. Over 70% still live on the equivalent of less than $1 a day; decaying hospitals, schools and roads tell their own stories. Bashir Borodo, the president of the Manufacturers' Association of Nigeria, reckons that in the poorer north of the country over 60% of university graduates are unemployed. And with so many people doing casual jobs, under-employment is massive too.

Besides all this, the deeply corrupt political system has remained intact and, if anything, entrenched itself under Mr Obasanjo. In Nigeria, politics is money, and money is politics. With economic activity almost totally dependent on the oil revenues that flow in through the central government coffers (over $50 billion in 2006), the surest way to enrichment is through political office—or through contracts from your best mates in those offices. Incumbency has become everything in Nigeria; to lose office is to lose almost the only means of survival, as well as immunity from prosecution. The extra cash flowing through the system from a higher oil price has merely raised the political stakes, making politicians more brazen than ever in their attempts to cling to office. Or, as Mr Obasanjo said himself, these elections were “do or die” time for his ruling PDP.

The result, as the EFCC's Mr Ribadu puts it, is “not even corruption. It's gangsterism. It's organised crime.” That is particularly true of local and state politics, where most of the money is actually disbursed. The problem is most acute in the five or six oil-rich Delta states. There the local elections on April 14th were replaced by something more like organised thuggery, with PDP gunmen beating up opponents, intimidating voters, snatching ballot boxes and stuffing them with pre-marked ballots. Winning candidates piled up huge victories on high turnouts in places where the ballot papers had never even arrived.

The rewards for such rigging can be impressive. In 2006, for instance, the governor of Rivers State, Peter Odili, had a budget of $1.33 billion to spend, considerably more than the budgets of some other west African countries, such as Mali and Niger. Moreover, Mr Odili had far fewer people to spend his money on.

Not that much of the money is actually spent on them. An almost total lack of transparency hides where most of the money goes, but a Human Rights Watch report managed to catalogue some items in the Rivers State budget for last year. The governor's office spent $65,000 a day on transport and travel and over 1.5 billion naira ($11.5m) on new cars; two new helicopters cost 5 billion naira, on top of the previous year's new jet; about 1.3 billion naira went on gifts and catering. By contrast, the capital budget for the health sector was 2.8 billion naira, in a state with some of the poorest, least healthy and worst-educated people in Africa.

Gangster politics

When farcical election exercises deny people the opportunity to vote their politicians out of office, it is not surprising that many take up arms to get their share of the oil money, through kidnapping and illegal bunkering of oil. Political resistance slips easily into plain gangsterism. But the politicians, in turn, will employ the gangsters to do some kidnapping and bunkering for them. It is good business; over 100 foreign oil-workers have been kidnapped and ransomed in the past year alone, at about $500,000 a time. In much of the Delta it has now become difficult to distinguish between politicians, gangsters and insurgents. The charade of the state elections on April 14th will only have added to the bitterness and hostility in the region, making early resolution of the Delta insurgency even less likely than before.

On the day of the presidential election money-politics could be seen in action in central Kano, the dusty, dilapidated industrial capital of the north. There, in the local government area of Fagge, the PDP had budgeted 35m naira for political “mobilisation” and the main opposition party, the All Nigerian Peoples' Party (ANPP), 40m naira. In one ward, Fagge A, the PDP, according to one of its operatives, had budgeted 594,000 naira ($4,650) for 21,000 registered voters and 35 ballot boxes. Thus each “independent” presiding officer at the polling station was given 3,000 naira and his clerk 2,000 naira. Each policeman was getting 1,000 naira. That left payments of about 200 naira ($1.57) per voter—whose votes, far from being secret, were inked with a thumb on the ballot in front of party agents. Multiple voters, who will have registered several times with sympathetic election officials, might vote ten times, at a reduced bulk rate of 100 naira—still picking up a tidy 1,000 naira each.

The friendly officials are paid for a variety of services, one of which is not to scrutinise the register too

closely. Hasia, for example, had just voted with the registration card of her mother, who had already voted herself. Hasia had the second of her mother's two cards. She has probably not even reached the legal voting age of 18. Her card clearly identified its owner as being 60 years old, but this had not proved a problem with the right official.

All day PDP and ANPP party agents were negotiating spot-prices on votes, rather like the oil markets that grease the rotten political machines. But at least there was voting in Kano state. To the north, in Katsina, Mr Yar'Adua's home state—which he had to win comfortably—it was more like the Delta, with ballot papers arriving very late or not at all. And, curiously, remarkably few presidential ballot papers arrived at the polling stations, leading many voters to conclude that they had already been filled in elsewhere.

In his own quest to hang on to the rewards of office, in 2005 Mr Obasanjo started a campaign to alter the constitution to allow him to run for a third term. Huge bribes, of up to 50m naira, were offered to parliamentarians to vote for the change, but the Senate bravely voted against it last year. Since then, Mr Obasanjo has misused every means at his disposal to ensure that his own PDP men win the state houses and the presidency, knocking his opponents out of the race by bringing charges of corruption against them from the EFCC.

So even the straight-talking Mr Ribadu's outfit has now been politicised. It has used high-handed and unconstitutional means to smear Mr Obasanjo's opponents and keep their names off the ballot papers. The EFCC has done some good work in the past. But, like the elections themselves, its credibility has been mortgaged to political expediency.

The charitable interpretation of Mr Obasanjo's behaviour is that he has to act this way to “preserve” the reform programme. If that is so, he has badly miscalculated; the reform programme has itself become a casualty of the rotten politics.

Can Nigeria expect anything better from Mr Yar'Adua, if he is sworn in as president on May 29th? Probably not. Despite a reputation for personal honesty, the obscure northern governor comes to power as a creature of Mr Obasanjo's PDP clique. With few obvious credentials for the job, apart from being the younger brother of Mr Obasanjo's former vice-president, he was hand-picked by the president against the will of many in the party. And Mr Obasanjo will retain considerable formal power as the party chairman. At least Mr Yar'Adua is a northern Muslim, taking over the presidency from a Christian southerner.

As a free-marketeer, he has pledged to continue the reforms of his master. But he will come to power with even less legitimacy than Mr Obasanjo had after his own flawed election victory in 2003. This will cause huge difficulties for him, especially if Nigeria's disillusioned Western backers give the country a wider berth.

Progress by saxophone

Nigerian politics does not have to be like this. Given a chance, good state governors do emerge. In Cross Rivers, for instance, on the border with Cameroon, Donald Duke has effected an impressive transformation over the past eight years.

In the state capital, Calabar, the streets have no pot-holes. According to the state government, every village is connected to the national grid and everyone has access to clean water. There is almost no litter. Remarkably, instead of the fleet of blacked-out SUVs that normally idle outside governors' offices, ready to whisk the big man a few hundred metres down the road, outside Mr Duke's office stand brand new garbage lorries from Germany.

AP

A vote for Yar'Adua is unlikely to change her world

Moreover, Cross Rivers has no oil wealth. Mr Duke has achieved all this on a fraction of the money available to his neighbours. Instead, he has frozen official salaries, cleverly exploited existing resources and taken on debt. In partnership with private investors, he is also responsible for Tinapa, the largest retail and business development in west Africa. It contains several new giant studios to grab a large slice of the $200m-300m a year “Nollywood” film industry, which churns out, by some estimates, more films than either of its rivals in Los

Angeles or Bombay.

The other key to the state's success is Mr Duke's love of the saxophone. Every Sunday evening he performs in his house with his band. And instead of trying to micro-manage his succession, rig the state elections and prepare for endless court battles, when he leaves office at the end of May Mr Duke is going off to America for a music course. It is an unusual example of a politician who is willing to let go.

But if honest and good leaders can make a difference, the only sure way to break the corrosive link between money and politics in Nigeria is to encourage a private sector that is vigorous enough to give people other ways to make money. As last week's vote-rigging showed, Nigeria is bursting with energetic entrepreneurial talent. But trying to start a business from scratch is almost impossible. Capital scarcely exists. Although banks are required by law to set aside one-tenth of their pre-tax profits for small business start-ups, few loans are actually made.

The biggest impediment of all to economic activity in Nigeria is the country's feeble and erratic power supply. All businesses have to have expensive generators that can double the cost of a start-up; they then have to employ people just to scuttle around grabbing whatever scarce diesel fuel they can find to supply the generators. Two weeks before the election, the ramshackle national Power Holding Company (known to Nigerians as Please Hold Candle) managed to churn out just half the electricity that the country produced in 1960 for about half as many people. If the new president could do just one thing to improve Nigeria's political and economic prospects, it would be the full electrification of his country.

“It is totally false”, wrote Chinua Achebe, Nigeria's greatest writer, 24 years ago,

> to suggest that Nigerians are fundamentally different from any other people in the world. Nigerians are corrupt because the system under which they live today makes corruption easy and profitable; they will cease to be corrupt when corruption is made difficult and inconvenient. The trouble with Nigeria is simply and squarely a failure of leadership.

After Mr Obasanjo's failure, Africa's weary titan still awaits those leaders.

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Schools and race

Still separate after all these years

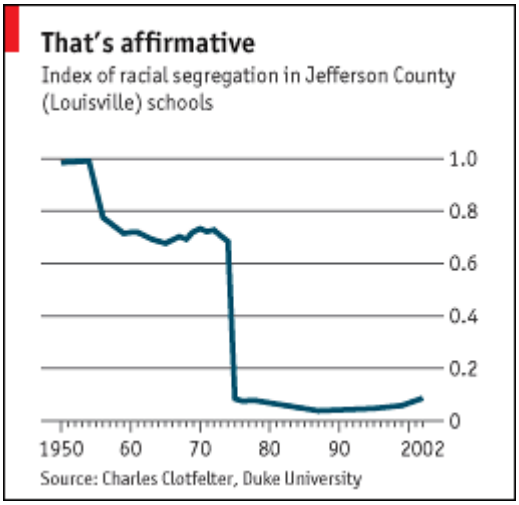
Apr 26th 2007 | LOUISVILLE AND RALEIGH
From The Economist print edition

Alamy

Five decades after the Supreme Court struck down school segregation, black and white children continue to learn in different worlds. And it could get worse

LARRY BISIG grew up in Louisville, Kentucky, where he went to Catholic school and where he now runs a local marketing firm. He has seen his local school district's history from several angles. In 1975, when a court-ordered desegregation drive began, his public-school friends started waking up at five o'clock to be bussed to new schools across town. His Catholic school made reassuring intercom announcements, saying that the public-school buses had arrived safely—despite the violent protests and threats. And he remembers the sudden influx of new students into his own school, as white Protestant families chose a Catholic education for their children rather than sending them to public school with blacks.

By the 1990s, however, the Jefferson County school district, which includes Louisville, was far more racially integrated (see chart). Its public schools had also become much more attractive to the white families who had stayed in the district, and Catholic schools had such a hard time keeping students that Mr Bisig's marketing firm began working with some of them to handle the stiffer competition. These days, Jefferson County is eager to keep the racially integrated school system it has created. But that integration—which began with a federal court order driven by Supreme Court precedents—is now under threat from the Supreme Court itself.



The court's two newest justices—Samuel Alito and the chief justice, John Roberts—are serving their first full term together in 2006-07. And although the new court has sometimes aligned in unexpected ways, George Bush's two appointees have given a more conservative tilt to some important decisions. Most notable was a five-to-four ruling last week upholding a congressional ban on partial-birth abortions. Sandra Day O'Connor, a moderate, had previously provided a pivotal vote against abortion restrictions. Last week's ruling thus seemed to confirm that her replacement by Justice Alito will lead to a conservative shift in at least some types of cases. Race-conscious education policy, which Justice O'Connor broadly favoured, is among the areas most likely to change.

In the coming weeks the court will announce its decision on a pair of cases that it heard in December,

involving the Jefferson County school district and another in Seattle. Both districts act aggressively to maintain racial balance in their schools, but may not be able to continue.

In Seattle, where places in the most popular high schools are scarce, officials use race to decide who gets left out, so that a school's racial mix will not deviate too much from the district average. Jefferson County uses a broadly similar system to ensure that black students, who are 35% of the total, make up 15% to 50% of the student mix in every school. A white student's mother has claimed that he was deprived of a good school place there to preserve this racial mix, violating his rights. Lower courts have upheld both districts' methods, but the newly conservative Supreme Court is examining the issue.

Even without this judicial complication, America's school boards are being sorely tested by economics and geography. Blacks and whites still tend to earn different incomes and live in different areas. And those stark facts undermine many districts' efforts to foster racially integrated schools and equal education. As a result, 53 years after *Brown v Board of Education*—in which the Supreme Court declared school segregation to be unconstitutional—the gulf between blacks' and whites' educational attainment remains glaringly wide.

The winning lawyer in the *Brown* case was Thurgood Marshall, a descendent of slaves who would later become a Supreme Court justice himself. When the court issued its unanimous opinion that “separate educational facilities are inherently unequal”, Marshall was so pleased with the decision that he said “we hit the jackpot”. For the past five decades, America's judges, politicians and school boards have wrestled with the challenges of putting the court's principle into practice. Despite all the integration that these reforms have achieved, however, Marshall's jackpot has so far brought only a fraction of the equality that it once seemed to promise.

Segregation no longer has the force of law, but it is still a fact of life in most cities. Many districts are actually going backwards, as Charles Clotfelter of Duke University documented in a 2004 book, “After Brown: the Rise and Retreat of School Desegregation”.

The reasons for this failure have long been more apparent than the solutions. High-income and middle-class white parents have moved in droves to suburban school districts that are outside the reach of city ones, thereby using the housing market to buy a better education for their children. Other affluent families have quit the public system entirely, and use private schools instead. And even though many white children still attend public schools in cities, big gaps in wealth—and in parents' ability to work the system—force school administrators to adapt constantly if they want to keep their schools racially integrated.

Louisville at least manages to include the suburban bits of Jefferson County in its school district. In many American cities, especially in the north-east and Midwest, middle-class parents can choose from a variety of separate districts in nearby suburbs, leaving struggling cities behind.

Nothing can be done about this because the Supreme Court ruled in 1974, in *Milliken v Bradley*, that desegregation cannot be required across school district lines, even if it is compulsory within them. That decision left the door wide open for white flight, and marked a constitutional limit for America's drive to integrate its schools. The city involved in the *Milliken* decision, Detroit, has been left with one of America's starkest racial divides between city and suburbs, and the quality of the city's public schools has collapsed.

Colour-blind alternatives

The question facing many school boards now is whether to keep focusing intently on the racial mix of each school, or to pour their energy instead into offsetting the disadvantages faced by any child, regardless of colour, whose parents are poor, uneducated or just hopeless. The Supreme Court may soon make this decision for them, in its rulings on Seattle and Jefferson County. But even if the court issues a vague or flexible opinion, a growing number of school boards have been considering an alternative approach to improving equality.

The Wake County school district in North Carolina, for example, began mixing students from different economic backgrounds together in 2000, instead of continuing to integrate them by race. Some 40 districts across America now do something similar, often using the receipt of free or reduced-price lunches as a simple proxy for low-income status.

Wake County, which includes the city of Raleigh, does not reassign students individually. Instead, it divides its district into hundreds of “nodes”, each one classified by the number of children who qualify for lunch subsidies. It rebalances schools by moving entire nodes at once, which both avoids singling out poor children and lets neighbourhood friends stick together. The goal is to ensure that no school in the district has more than 40% of its students on free lunches, or more than 25% performing below their grade level.

AP

The Supreme Court in session

The county's schools perform well. And despite overcrowding and a population that is 27% black and 45% non-white overall, affluent white families are still pouring into the district and enrolling their children in its public schools. True, the rapid growth is taxing the district's capacity and stirring lots of complaints, but many other urban school districts would love to have too many rich white kids.

The Wake County model will tempt many other school boards if the Supreme Court forces districts to scale back or dismantle race-based integration schemes. But its new approach is not the only reason for its success. It previously had a good history of integrating schools racially with support from parents, and had made extensive use of magnet schools—which offer variety and innovation—to draw white students back into Raleigh. Teachers in North Carolina are not unionised. And the county was always well off economically.

Whatever school districts do, says Derek Neal, an economist at the University of Chicago, any serious effort to bridge the gap between poor (disproportionately black) children and everyone else will have to involve spending more money—probably lots more—on those poor students, since they clearly need more help. As in any other labour market, says Mr Neal, “if you want more work done, you have to pay for it.”

It's really about the middle class

This point often gets lost in debates about school vouchers, choice and the role of competition. At the core of that debate lie competing theories about what disadvantaged students need most. Voucher advocates argue that they need their own money to spend, so that schools will compete over them.

Many voucher opponents, by contrast, believe that what poor (or black) children need most is access to rich (or white) children every day in the classroom, along with all the advantages that affluent and involved parents bring to their children's schools. They favour spending more money on schools and teachers' salaries, but fear that competition from outside the system would undermine integration.

Both arguments, however, have a debatable premise in common. They assume that the main educational goal of America's voters and policymakers is to improve the lot of children from low-income families, who tend to be the slowest learners. Many pressure-groups pay lip-service to this notion only to win support for schemes which they prefer for other reasons. In America's current political environment, pandering to middle-class gripes appears far more popular than really helping the poor. So the odds that any education reform with voters' support will genuinely be aimed at poor children seems depressingly low these days—whatever the Supreme Court rules, and however many years have elapsed since *Brown*.

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New York

Greening the Big Apple

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The mayor's long-term plans for saving the environment

Get article background

THE city is in pretty good shape. Unemployment is at a record low. It is safer now than it was when Kennedy was president. Tourism is thriving. The bond rating is high. After the September 11th 2001 attack, many expected the worst for New York. But the mayor, Michael Bloomberg, has turned deficits into surpluses. He has also managed to make New Yorkers live healthier lives, banning smoking and trans-fats. Now, he has set his sights on the city's long-term sustainability.

The population is expected to grow by almost 1m to 9m by 2030—and the infrastructure is already crumbling. If something is not done to make the Big Apple greener, said Mr Bloomberg on April 22nd, New York will be on a “collision course with the environment”. He proceeded to unveil a 25-year vision that he hopes will be a model for other cities.

The mayor is proposing 127 new initiatives dealing with land, air, water, energy and transport. His proposals include introducing molluscs into the city's waterways as natural bio-filters, adding bicycle lanes and hastening the cleaning and rezoning of 7,600 acres (3,100 hectares) of contaminated land. He hopes to add 1m trees. New parks should mean that every New Yorker lives no more than 10 minutes away from one. School playgrounds will be open to the public.

Some of his provisions are even more ambitious. He plans to cut the city's greenhouse gas emissions by 30% in part by improving the efficiency of power plants. To pay for this, a $2.50 monthly surcharge will go on electricity bills. He argues that by spending $30 a year until 2015, every household will save $240 a year after that. This bid for energy conservation would be the broadest attack on climate change ever undertaken by an American city.

The most controversial proposal and the most politically courageous is congestion pricing. A one-time sceptic, Mr Bloomberg has been won over by the success of pricing in London and Singapore and now intends to set up a three-year pilot programme. The $8 fee to enter Manhattan below 86th Street will, he hopes, encourage more people to use public transport, thus improving the air, general health (in some

areas one in four children suffer from asthma) and the quality of life. Taxis are exempt. By his reckoning, only 5% of New Yorkers commute to Manhattan by car. Those drivers will pay about half the fees, suburban commuters and commercial vehicles the rest.

Arnold Schwarzenegger, California's verdant governor, and Britain's prime minister, Tony Blair, both sent messages of support to the mayor. But Mr Bloomberg still has to win over his own state. He hopes, for instance, that the state legislature will agree to create a body with authority to raise money for improving transport. The city will commit $200m a year to such an authority and he wants Albany to match it, plus help from the federal government. Congestion pricing is expected to raise $380m in its first year alone.

Mr Bloomberg's vision is ambitious. But he needs to overcome Albany's doubts, and to win over public opinion in New York. He must do it fast: he will be in office for fewer than 1,000 more days.

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Housing

Going down

Apr 26th 2007 | LOS ANGELES
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But despite weak house prices, Americans are still spending

Get article background

“BOSTON is still in the pits...in Florida it's like death takes a holiday...Las Vegas is now terrible...Michigan may be a situation where it doesn't come back.”

Robert Toll, chief executive of Toll Brothers, one of America's biggest builder of luxury homes, has a droll style. But his comments at this week's Milken Institute Global Conference, a gathering of 3,000 financiers and businesspeople in Beverly Hills, left little doubt about his view of the state of the housing market. True, there were one or two bright spots—the New York market was “phenomenal”; Connecticut had “got a lot better”; Texas was “good”—but Mr Toll's overall tour was pretty bleak.

A fresh crop of national statistics support him. On April 24th the National Association of Realtors reported that the sales of existing homes fell by 8.4% in March, the fastest decline in 18 years. Government figures a day later suggested that sales of newly-built homes rose 2.6% in March, after plunging in both of the previous two months. March's rebound was smaller than analysts had expected and sales of new homes are nearly a quarter below their level a year ago.

Part of the problem, as the estate agents' lobby was anxious to point out, was the weather. Balmy days in December and January pushed sales of existing homes up in those months while freezing temperatures in February deterred potential house-hunters, That meant fewer sales to be completed (and counted) in March.

But the vagaries of the weather cannot explain all the lack of demand. Tighter lending standards are making it harder for subprime and other weak borrowers to get mortgages. And many buyers are waiting for prices to fall further.

According to the National Association of Realtors, the median price for an existing home was 0.3% lower in March than a year earlier. This measure, however, does not adjust for the mix of homes on the market. A better gauge, the S&P Case-Shiller index of house prices in 20 big cities, showed prices were 1% lower in February than a year earlier. A narrower index of the ten biggest cities in America suggests house prices there have fallen 1.5% from a year ago.

And they clearly have further to go. There is a huge backlog of unsold homes. Almost eight months' worth of new homes are up for sale. Although the number of existing homes for sale fell slightly in March, the plunge in the pace of sales means that there are now 7.3 months-worth of supply on the market, up from 6.8 in February. The subprime mess is likely to lead to forced sales, which will increase the stock, pushing prices down further.

The big uncertainty is how much, and when, weaker house prices affect consumer spending. So far, flatter house prices and a drop in mortgage-equity withdrawal—the process through which people can extract cash from their homes—have not prompted Americans to scrimp. Consumer spending grew at an annual rate of 4.2% over the past six months.

The strong stockmarket has helped. But spending has been resilient mainly because unemployment is

low and Americans' pay packets are still fat. The jobless rate is 4.4% and real incomes have been rising even faster than spending.

As long as jobs are plentiful and wages rising, the effect of weaker house prices will be muted. If they don't, the picture darkens quickly. “What happens if we get a recession and housing is still bad?” Mr Toll asked this week. The results, he thought, could be “cataclysmic”.

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Visiting from Mexico

Friends and neighbours

Apr 26th 2007 | SAN ANTONIO
From The Economist print edition

The city where the Alamo battle was fought lets bygones be bygones

AP

Come and party

THERE are some Americans who are obsessed with keeping Mexicans out of the country. And then there are those like Phil Hardberger, the mayor of San Antonio. “We need to make it easier for them to come here,” he says. He is referring to visitors. And many people in his city agree.

Mexicans spend billions of dollars a year in Texas, and San Antonio would like a little more of that money. Fewer than 200,000 people fly directly from San Antonio to Mexico, or vice versa, each year. Far more go to Dallas and Houston.

That is somewhat odd, given that San Antonio is a big Latino centre. It is the largest city in America with a Hispanic majority. Some 60% of its residents are Latino, mostly Mexican-American, and more than 40% speak Spanish at home. The Museo Alameda, a Smithsonian affiliate dedicated to “the Latino experience”, opened in San Antonio on April 13th. It abuts a marketplace selling sombreros, confetti-filled eggs called *cascarones* (see picture) and skeleton figurines used to celebrate the Day of the Dead. The scene is especially lively in April, when several million people come for Fiesta San Antonio, a ten-day festival with as many margaritas and mariachi bands as anyone could want.

The fiesta is the city's biggest event, and such celebrations occasionally figure in local politics. Mr Hardberger owes his election in part to the 2005 River Parade. City councilman Julian Castro, then the front-runner, sent his twin brother to ride on a float in his stead. After they were rumbled, many voters decided that Mr Castro was too immature to be mayor.

Despite all this jollity, Dallas and Houston beat San Antonio at attracting travellers from Mexico, particularly business travellers. This year, while the fiesta was underway in San Antonio, Houston was hosting a food exposition that attracted 45 Mexican companies. One Querétaro-based outfit hawked square tortillas.

The problem, according to Mr Hardberger, is San Antonio's comparative inaccessibility by air. San Antonio is the 7th largest city in America, but its airport is so small it is almost cute. It seldom takes more than five minutes to go through security. San Antonio offers just three or four daily flights to Mexico City and only one to Monterrey. Mr Hardberger wants more direct flights, especially to Monterrey, the closest big Mexican city to San Antonio.

And familiarity, in this case, may have bred neglect. “We have really just turned our back on them,” says

Mr Hardberger. He thinks that, with so many natural ties between San Antonio and Mexico, people assumed a rapport would flourish untended. But as it is with people, so it goes with places, he reflects. “If you don't take care of your relationships,” he says, “you may not have those relationships.”

This is wise: Dallas and Houston are not the only American cities happy to pick up the slack. This week Kansas City welcomed a delegation from Mexico to talk about international supply-chain management. Officials in Laredo, Texas, are thinking of building a fifth bridge to Nuevo Laredo, Mexico, to alleviate traffic. Politicians in New Mexico are lobbying for relaxed visa rules that would encourage visitors from Mexico to linger in Las Cruces. The battle for the Mexican dollar is on.

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California's ports

Smoke on the water

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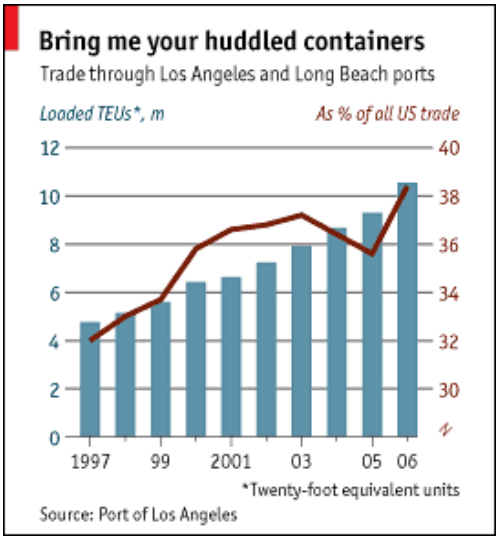
From The Economist print edition

Southern California's ports could get cleaner but less competitive

HAULING 20-foot containers is not as glamorous as making films, but shipping is doing more than Hollywood to boost southern California's economy these days. The adjacent ports of Los Angeles and Long Beach, already the two biggest in the country, are growing quickly thanks to trade with China (see chart). They are a giant job-creating engine, stimulating industrial and warehouse employment on a scale not seen in the region since the rise of the aerospace industry after the second world war. Sadly, like most engines, they are filthy.



The ports themselves reckon they are responsible for about 12% of all the diesel particle emissions and 45% of the sulphur oxides in southern California. Carried east by prevailing winds, such pollutants help to create some of America's worst air more than 50 miles (80km) inland. Those who live close to the freeways leading out of the ports suffer the most. Researchers at the University of Southern California have found that children living within a few hundred metres of such roads are not only more likely to suffer from asthma. They actually have smaller lungs.

Ships are the biggest polluters, accounting for close to 60% of all diesel particles emanating from San Pedro bay, where the two big ports are located. Oddly, though, the ports are doing little to clean them up, beyond nudging them to burn slightly cleaner oil and providing more of them with electricity at the docks (at the moment many have to idle their engines).

The most ambitious effort to control pollution, and the one that may affect the local economy most drastically, involves truckers. Some 16,000 lorries currently haul containers between ships and warehouses. Most of them are owned by Hispanic immigrants, who buy the vehicles after they have already notched up a few hundred thousand miles in the long-haul business. The drivers put in long hours: 13 a day is not unusual, according to a survey by Kristen Monaco, an economist. They earn, on average, just under $35,000 a year. Such jobs, like many connected to the port, are an important stepping-stone on the path to the middle class.

The ports want to scrap the oldest trucks and gradually upgrade the others so that, within five years, the fleet emits four-fifths less pollution than at present. To help pay for this, they intend to levy a fee of $34 to $54 on every “dirty” vehicle entering the port. Most important, they want to turn a large, unwieldy network of independent contractors into a more orderly group of companies operating concessions, as happens in an airport. “We need to have more control,” explains Geraldine Knatz, the head of Los Angeles' port.

Critics, including truckers' associations, complain that the new charges will simply drive trade elsewhere. That is unlikely. The new generation of ships, which can carry more than 8,000 20-foot (6-metre) containers, are too big for the Panama Canal. Besides, the huge size of the southern Californian market means importers will still find it makes sense to ship goods through Los Angeles even if it costs them a premium to do so.

The reforms do nonetheless pose a threat to the ports' competitiveness. At present, the truckers who work at the docks are price-takers, not price-setters. Because they are self-employed, they are almost impossible to unionise, and consequently have little bargaining power. All that could quite easily change if they were to become the employees of a few large firms. Indeed, the most enthusiastic welcome for the ports' plans has come not from environmental groups but from the Teamsters' union.

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Silicon Valley

Deportation order

Apr 26th 2007 | SAN FRANCISCO
From The Economist print edition

A place that loves globalisation hates a benighted "visa raj"

Get article background

SILICON VALLEY, as the old joke goes, was built on ICs—Indians and Chinese that is, not integrated circuits. As of the last decennial census, in 2000, more than half of all the engineers in the valley were foreign-born, and about half of those were either Indian or Chinese—and since 2000 the ratio of Indians and Chinese is reckoned to have gone up steeply. Understandably, therefore Silicon Valley has strong views on America's visa regime.

The latest reminder of the power of the "quota raj", as Indians like to call it, came on April 2nd, the day the Citizenship and Immigration Services began receiving applications from employers for this year's batch of H-1B visas, a special class of visa that allows highly qualified foreigners such as software programmers to work in America for up to six years. The number of these is currently capped at 65,000 a year, well down from 195,000 a year in 2003.

Within hours, 150,000 applications flooded in and the government picked the winners by computerised lottery. An additional tranche of 20,000 H-1Bs for graduates from American universities will run out very soon. As the *Harvard Crimson*, the university's daily paper, puts it, many of the foreigners in its class of 2007 have received their "deportation orders".

A lot of this has to do with a political backlash against Indian and other foreign scientists caused by offshoring, the practice of farming out technology operations to firms in places such as India—"exporting jobs" in populist jargon. But the quota actually mostly hurts American firms. "There is a skills shortage in Silicon Valley," says M.R. Rangaswami, who migrated from Chennai (then Madras) in 1976 and now runs the Sand Hill Group, a firm in the valley that advises software companies. Bill Gates told a Senate panel in March that the H-1B quota was endangering America's future and should be abolished.

Senator Edward Kennedy asked Mr Gates whether this might cause a brain drain in poor countries. AnnaLee Saxenian, a professor at the University of California at Berkeley and author of "The New Argonauts", a book on the subject, argues that the exact opposite is the case. It might be called brain circulation.

Immigrants, she maintains, tend not to leave a place altogether. They form networks that, in effect, make Silicon Valley the head office and their home countries the branch offices. That's what the Taiwanese and Israelis who came to Silicon Valley in the 1970s and 1980s did, and the Indians and Chinese followed the same pattern.

Thus the Taiwanese built Hsinchu, near Taipei, into a "silicon sibling" for manufacturing gadgets dreamed up in California; the Israelis, with ties to their army, built a transnational security-software industry; and the Chinese and Indians are now turning Shanghai and Bangalore into new silicon siblings in, respectively, microchips and software.

As a result, the typical start-up firm in Silicon Valley today is a global multinational from its day of incorporation, with entrepreneurs travelling back and forth, hiring talent inside and outside the United States and transferring technology, capital and chutzpah in both directions. Take Prem Uppaluru, who graduated from the Bombay branch of the elite Indian Institute of Technology in 1975. Some 30% of his class came to Silicon Valley and all have founded technology companies; Mr Uppaluru is currently on his fourth, and has just hired 35 people in Silicon Valley and 25 in Bangalore.

More of these immigrant entrepreneurs are now returning home, but without giving up on Silicon Valley, says Sridar Iyengar, a former president of the Indus Entrepreneurs, a predominantly Indian network. He

himself moved back to India in 1997 but keeps his home in Silicon Valley and his green card.

All this could change for the next generation of talented Indians and Chinese, says Mr Iyengar, who is 60. His generation typically came with an H-1B visa, then got a green card and eventually citizenship. Now, getting just the first is much harder. At the same time, the quality of life and opportunity at home in India or China has improved spectacularly. Increasingly, Mr Iyengar, who is an adviser to and investor in several Indian start-ups, is advising young Indians to stay at home.

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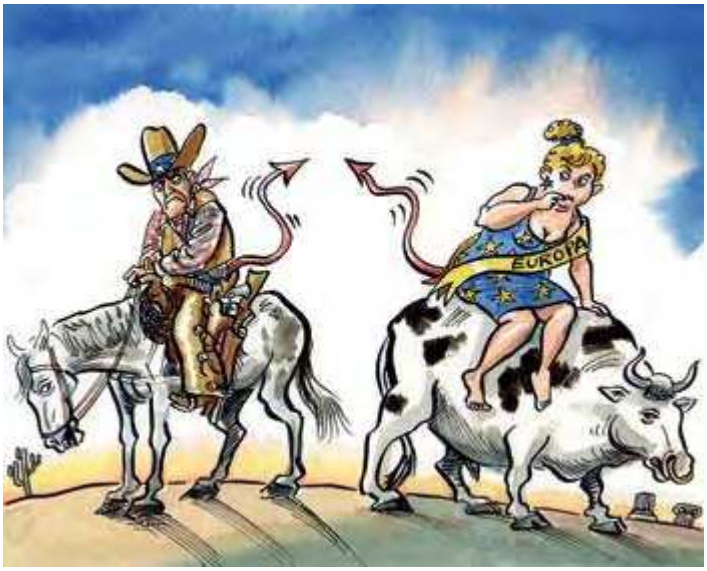
Lexington

Against anti-Europeanism

Apr 26th 2007
From The Economist print edition

Anti-Europeanism is a bad response to anti-Americanism

Peter Schrank



APRIL 26th found the Oxford Union debating the motion that “This House regrets the founding of the United States of America”. A silly motion supported by unrepresentative people: the proponents were to include a member of the Communist Party and a member of the Islamist group Hizb-ut-Tahrir. But anti-Americans do not possess a monopoly on idiocy. You don't have to spend much time with American conservatives to find them discussing the coming collapse of Europe, sometimes with glee. One of the opponents of the Oxford motion, Jonah Goldberg, did much to popularise “The Simpsons'” labelling of the French as “cheese-eating surrender-monkeys” in the run-up to the Iraq war.

America's anti-Europeans have three big complaints about the Old Continent. The first is that Europe is committing demographic and economic suicide: the European birth rate is well below replacement level, and the economy is hog-tied by regulations and overburdened by welfare commitments. The second is that, unlike America, Europe is a post-Christian society. George Weigel, a Catholic conservative and loving biographer of Pope John Paul II, deftly links Europe's “demographic suicide” with its collapse of faith in his “The Cube and the Cathedral: Europe, America, and Politics without God”, a theo-conservative bible on what has gone wrong with Europe.

The third complaint is that Muslims are filling Europe's demographic and spiritual void. Bernard Lewis, the White House's favourite Islamic scholar, thinks that Europe will turn Muslim by the end of the century, becoming part of the Arab West. Bruce Bawer, a gay American who fled his country to escape from “the foolishness of fundamentalism”, found Islamists far more frightening than Christian conservatives.

Anti-Europeans think these kinds of arguments have big implications for American diplomacy. They suggest, at the very least, that Europe will never be a vigorous ally against Islamic extremism. It is too diffident about its own traditions, too over-burdened by welfare commitments, too frightened of its Muslim populations. And it might even suggest something more than that. Tony Blankley, a journalist who once worked for Newt Gingrich, has decided that “the threat of the radical Islamists taking over Europe is every bit as great to the United States as was the threat of the Nazis taking over Europe in the 1940s.”

How much does this matter, though? It is tempting to dismiss it as nothing more than a mirror image of anti-Americanism—advanced by malcontents, fuelled by anger and based on prejudice. Europe-bashing is

a passion of the right and the right is hardly in the political ascendant these days. The argument is based on a familiar sleight of hand: the bunching of worst-case scenarios. Do Europe's empty churches really mean that Europeans have abandoned their faith? Three-quarters of Europeans still claim to be Christians, and European sociologists talk of “believing without belonging”. Are European Muslims really poised to take over Europe? They constitute only 4% of the population and come from very diverse backgrounds. Have European countries really lost the will to assimilate newcomers? Several countries have introduced citizenship tests and ceremonies that are modelled on the American variety.

But anti-Europeanism is influential nonetheless. The end of the cold war has removed the glue that held the Western alliance together. The Iraq war has left a legacy of bitterness that extends beyond the Bushies. And the anti-Europeans have an important resource on their side: their disproportionate interest in matters European and their disproportionate willingness to publish books on them. American anti-Europeans have produced a steady stream of books with titles like “America Alone”, “Our Oldest Enemy”, “While Europe Slept”, “The West's Last Chance”. The foreign-policy specialists to whom one might look for a corrective are much more involved with other challenges, like the Middle East and Asia.

Let's stick together

Yet the case for learning to live with each other again is overwhelming. America and the European Union are still the world's two biggest trading entities. The Atlantic relationship has been the foundation stone of world peace from 1945 onwards. The EU, for its part, has at least as much interest in defusing Muslim terrorism as the United States, because of its large Muslim populations and proximity to Turkey and the Middle East.

And the current French election gives the lie to anti-Europeanism. France is the great Satan for American anti-Europeans—remember “freedom fries”? Yet the first round of the French presidential election went to a man who boasts of his admiration for American dynamism and popular culture. Nicolas Sarkozy is a frequent visitor to the United States and hob-nobber with American journalists and policymakers. He propounds American-sounding solutions to France's economic problems, such as tax cuts and ending the 35-hour week. His critics have dubbed him a “neoconservative with a French passport”.

The rise of Mr Sarkozy coincides with a growing determination in America to defuse global anti-Americanism. Even George Bush has tried to do this a little in his second term. But post-Bush politicians—particularly Democratic ones—will put this at the top of their priorities. Hillary Clinton has promised to make her husband an “ambassador to the world, because we have a lot of work to do to get our country back in the standing it should be”. Barack Obama, the other Democratic front-runner, stresses his ability to rebrand America, as a son of Kansas and Kenya whose father was born a Muslim. Curing global anti-Americanism primarily means repairing America's relations with the rest of the world; but it also means uprooting the anti-European weeds that have flourished in America in the past few years.

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Agrarian reform in Brazil

This land is anti-capitalist land

Apr 26th 2007 | ASSENTAMENTO MANOEL NETO AND BRASÍLIA
From The Economist print edition

AP

An erstwhile fight to end rural feudalism is becoming a political campaign against agribusiness

EVERY year in April groups who organise Brazil's rural poor, headed by the Landless Rural Workers' Movement (widely known as the MST), sponsor a nationwide bout of land invasions, takeovers of buildings and other protests. Part revolution and part ritual, “Red April” commemorates the killing 11 years ago of 19 landless protestors by police in the Amazonian state of Pará and promotes the martyrs' cause, the redistribution of land.

But nowadays much of the activism seems to have little to do with land reform. This year it included taking over highway toll booths in the southern state of Paraná. Last year a rural women's group destroyed a paper company's research laboratory. In the past the main targets were local land barons. More and more they are big companies, be they Brazilian or foreign, and the “development model” they represent.

Since the 16th century, when the Portuguese crown conceded vast “captaincies” to early colonists, land and power have been distributed unevenly in Brazil. Landlords exploited their tenants' labour and, after democracy arrived, harvested their votes. They often left vast tracts idle. The last agrarian census, conducted a decade ago, found that 1% of owners controlled 45% of farmland.

Agitation for land reform began in the 1960s. The MST was founded in the 1984, as democracy returned after two decades of military rule. It gained clout and sympathy partly as a result of outrages like the Pará massacre. Its activism has helped to change the countryside. Since 1995 governments have settled some 900,000 families—4m-5m people—in farming colonies, though sometimes in appalling conditions. Other changes have little to do with the protests. The countryside has modernised, with old-style landlords yielding to more enlightened heirs or to corporate farmers, for whom land is a business rather than a source of political power.

That has not placated the landless movements. “Agribusiness is the new name” for the alliance between “backward” land magnates and financial capital, says José Batista de Oliveira, a member of the MST's national directorate. The MST is now bent on a Manichaean struggle with agribusiness that it is unlikely to win and that may not do much for land reform.

The movement has become Brazil's most polarising force. Those who regard it as a lawless threat to progress are as passionate as those who extol its championship of the downtrodden. The MST is opaque, with no clear means of support apart from “solidarity”. Insiders say its decisions are “collective”. Zander

Navarro, a sociologist at Britain's University of Sussex and a former landless activist, says its internal structure is “very anti-democratic”. He reckons the movement has 1,500 full-time organisers. The MST says that estimate is high but, characteristically, claims not to know the number.

Land reform is not as controversial as the movements that promote it. For some commodities family farms are more efficient than industrial ones because their labour costs are lower. Critics allege that settlers are plucked from cities to which they migrated and end up worse off. But one survey found that 94% of settlers had previous agricultural experience and 79% said their lives had improved.

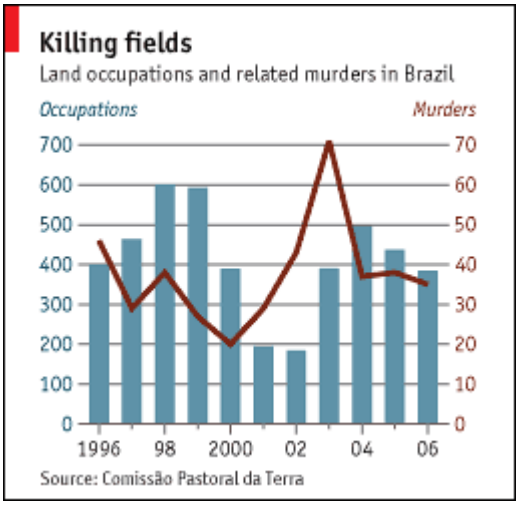
That seems true of the 86 families at the Manoel Neto settlement, founded in 2006 in São Paulo state. Transplanted to hilly ground in the Paraíba River valley, they hike for water and are trapped by muddy roads when it rains. Marilza Prado, who once worked as a domestic servant, says her family spent three years living under plastic sheeting in camps, surviving on odd jobs. But things are looking up. In December 2,400 reais ($1,200) of federal aid per family for food and investment finally arrived. Mrs Prado has exchanged her plastic shelter for a mud-and-bamboo house, and her husband, Nelson, is getting ready to market the pigs he has raised.

One government programme avoids conflict by offering subsidised credit to poor farmers to buy land in the market. But the more common method is the contentious process of expropriating land that is not fulfilling its “social function”. In practice, that happens mainly in response to noisy trespassing sponsored by the MST.

“Occupation provokes land reform,” admits Guilherme Cassel, the minister of agricultural development. Mrs Prado participated in 11 invasions before gaining her five-hectare (12 acre) patch. Federal aid to the settlers is often channelled through organisations linked to the MST. Angry anti-government rhetoric “hides relations of close co-operation and dependency between the state and the movements,” argues Lygia Sigaud, an anthropologist at Rio de Janeiro's Federal University.

That complex relationship has been even more fraught during the presidency of Luiz Inácio Lula da Silva, whose Workers' Party (PT) is a long-time ally of the MST. Officials boast of settling 381,000 families during Lula's first four-year term (which ended in 2006) and improving conditions. The MST's Mr de Oliveira scorns its efforts as “very timid” and points out that some 140,000 families are still encamped under plastic sheeting awaiting land.

Conflict in the countryside has ebbed but hardly stopped (see chart). For the MST, the demand for land reform is nearly bottomless and the conflict with industrial farming irresolvable. Mr de Oliveira reckons that 5m families—around an eighth of the population—are candidates for land redistribution. “Monocultures” like eucalyptus for paper, sugar cane for ethanol and soya degrade the environment, reduce the food supply in Brazil and drive labourers and small farmers off the land, he claims.



Mr Navarro argues that outside the dry regions of the Northeast, where the rural poor are clustered, demand for land is shrinking. That applies especially in the south, where ownership is less skewed and family farming is strong. Many small farmers supply pork and chicken to large food businesses. One sugar mill in São Paulo gets 5% of its raw material from a nearby MST settlement. The MST is changing its focus, Mr Navarro believes, because “land reform is slowly losing importance”.

The government is torn. Its many MST sympathisers struggle to reconcile their support with the need to uphold the law. They share the MST's suspicion of big farming but answer to a president who is enthusiastic, especially about ethanol. In 2005, the ministry proposed to stiffen the guidelines for classifying land as productive (and therefore not subject to expropriation). Lula has yet to approve any change.

Rolf Hackbart, the head of the federal land-reform agency, wants the government to take the initiative to plan land use rather than reacting to occupations. But this looks like a distant prospect. While the MST wages war on corporate farming, the question of how best to redistribute land risks being trampled underfoot.

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Abortion rights in Mexico

Breaking a taboo

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From The Economist print edition

A landmark abortion law marks the start of American-style culture wars

THE idea of legalising abortion has long been a taboo in Latin America, thanks largely to the influence of the Catholic church. Most countries in the region allow abortion only in exceptional cases, such as foetal malformation, rape or danger to the mother's life. Chile, El Salvador and, since last year, Nicaragua prohibit termination in all circumstances. Only communist Cuba (and Puerto Rico, part of the United States) allow abortion on demand.

This makes the decision on April 24th by Mexico City's legislative assembly all the more noteworthy. More than two-thirds of the assembly members voted to approve a law that will allow abortion on demand during the first 12 weeks of pregnancy. It requires the Federal District's hospitals to perform abortions and potentially opens the way for specialised private clinics. There is nothing in the law to stop unhappily pregnant women elsewhere in Mexico, or in other Latin American countries, from travelling to Mexico City to obtain the safe and legal abortion they cannot get at home.

AFP

They want the right to choose

That prospect appals opponents, who included not just the church but Mexico's conservative president, Felipe Calderón, and his wife. Proponents say it will put an end to a widespread and dangerous trade in illegal abortions. These kill up to 1,500 women a year, according to activists for women's rights.

The law is a sign of both social and political change in Mexico. During most of its seven decades of rule, the anti-clerical Institutional Revolutionary Party (PRI) banned the Catholic church from public life but was careful not to offend the deeply held religiosity of Mexicans.

A series of sex-abuse scandals involving priests has corroded the church's reputation in recent years. And as it has become more urban and educated, Mexico has become less socially conservative. But only up to a point: polls show opinion on legalising abortion evenly split, though with a small majority in favour in the capital.

Perhaps the biggest change has been a new willingness among politicians to debate social and moral issues since Mexico became a full democracy with the defeat of the PRI in 2000. Only a few years ago feminists would say that legalising abortion was impossible. Equally, conservatives were shy about calling for a crackdown on illegal abortion. There was an unstated pact of avoidance.

The initiative for the law came in part from the PRI. It was backed by the left-wing Party of the Democratic Revolution (PRD), which has governed the Federal District since this became a state in 1997. Unlike his predecessor, Andrés Manuel López Obrador, Mexico City's new governor, Marcelo Ebrard, has championed socially liberal causes. The law was opposed by Mr Calderón's National Action Party, which has close ties to the church.

The law provoked passionate campaigning on both sides. Opponents played recordings of crying babies outside the legislature. Bishops threatened supporters of the measure with excommunication. Proponents of the law invoked women's right to choose and pointed to the hypocrisy of back-street abortions. In an echo of the abortion debate in the United States, both sides used aggressive television advertisements fronted by celebrities.

Just as happened north of the border, the final decision may lie with the Supreme Court. Anti-abortionists

vow to challenge the law as unconstitutional; some also plan to picket clinics. Conservatives may try to enact even more restrictive abortion laws in states they control.

While making his views clear, President Calderón kept his distance from the debate. That stance may be hard to maintain. The law is a landmark for women's rights in Latin America. It may set a wider trend: last year Colombia's Constitutional Court loosened a previously total ban on abortions. Such changes may also mark the import of American-style “culture wars” into Mexico and Latin America. In a region where economics and social policy have long dominated political debate, that is a sign of growing prosperity and deepening democracy.

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Cuba

Resurrection

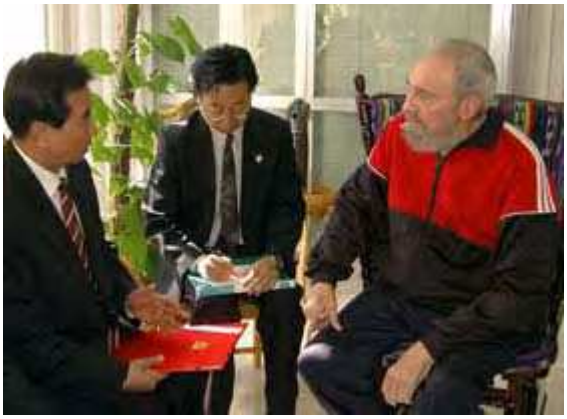
Apr 26th 2007 | HAVANA
From The Economist print edition

Is Fidel Castro about to return?

Get article background

IT WOULD be an extraordinary comeback, but it no longer seems unlikely. After he underwent intestinal surgery last year and apparently suffered grave complications, Fidel Castro, Cuba's president, seemed to be wasting away and to have only weeks more to live. But now there is much speculation in Havana that Mr Castro will choose May 1st, which his regime traditionally celebrates with a mass demonstration, to make his first public appearance since last July.

AFP



As I was saying before I was so rudely interrupted

Officially, the health of Mr Castro, who is aged 80, is a state secret. But Venezuela's president, Hugo Chávez, recently declared that his close friend had "almost totally recovered". Over the past few weeks *Granma*, the main state-owned daily newspaper, has carried a series of editorials signed by Mr Castro, in which he has addressed issues ranging from ethanol to the case of Luis Posada Carriles, an exile accused of terrorism (see article).

On April 21st Cuban media published photographs showing Mr Castro with a visiting Chinese official in Havana. He has visibly put on weight again. Images released previously seemed designed merely to dispel rumours that he had died. This time they showed the track-suited president involved in the business of government. "*Compañero* Fidel exchanged ideas with the politburo member for an hour," the paper reported. The message was clear: Mr Castro has not retired.

His reappearance in the flesh, if it happens, will be greeted with joy by some Cubans and dismay by others. It will also ensure that nothing much changes in the communist island. Last July the government announced that Mr Castro had turned over power to his younger brother, Raúl, and a collective leadership. The transfer of power went smoothly.

The only Cubans in a position to notice any change were those at the top of the government. Raúl Castro is very different in temperament from his brother. He keeps regular office hours, shuns publicity and likes to delegate. According to a foreign diplomat ministers seem far more relaxed, perhaps because "no one is phoning them in the middle of the night."

Raúl Castro is widely thought to be keen on encouraging more private enterprise (though he is not known to have any desire for political liberalisation). But there is no sign of this happening soon. Several commissions have been set up to look at the way the country is run. One is examining the socialist

property system. But even its preliminary findings are not due for three years.

Reformers within the Cuban leadership were never likely to show their hand while Fidel Castro remained alive. But now there is a new uncertainty. Does the president intend to take back some of his powers and functions? There has been speculation that he might assume a quasi-monarchical role, leaving Raúl and others to run the government. But in almost half a century in power, Cuba's president has never shown himself to be someone willingly to take a back seat.

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The United States and Cuba

The good terrorist

Apr 26th 2007 | MIAMI
From The Economist print edition

A case of double standards

HIS enemies call Luis Posada Carriles the “bin Laden of the Americas”. His release from a New Mexico jail on April 19th has sparked accusations of inconsistency in President George Bush's “war on terror”. They accuse Mr Posada, an elderly Cuban exile, of one of the most notorious crimes in recent Latin American history: the bombing of a Cuban airliner off Barbados in 1976 in which all 73 people on board died. Mr Posada, who has Venezuelan citizenship, was charged with the bombing in his adopted country. Venezuela's courts consider him a fugitive after he escaped from jail in 1985 while awaiting trial.

Both Cuba and Venezuela want the United States to extradite Mr Posada. His lawyers argue that he would face torture in either country. But he is unlikely to enjoy the comfort of his home in Miami for very long. He was released on bail pending trial on May 11th in Texas on seven counts of immigration fraud and lying about his illegal entry into the country. If convicted, he could face up to 40 years in jail. Since he is 79 and frail, any substantial jail sentence might in practice be for life.

The Justice Department claims it did everything it could to dissuade the judge from ordering Mr Posada's release. “We can't just unilaterally order a person to be held,” a spokesman said. But critics point out that the government frequently does just that under the anti-terrorist Patriot Act.

Why has this not been used against Mr Posada? In court papers, prosecutors describe him as “an unrepentant criminal and admitted mastermind of terrorist plots”. But Mr Posada spent much of the cold war working with the Central Intelligence Agency. He took part in the Bay of Pigs, the CIA's failed attempt to invade Fidel Castro's Cuba in 1961. He later helped to smuggle arms to anti-communist rebels in Nicaragua.

Mr Posada also boasted of organising several small bombs in Cuban hotels in 1997, one of which killed an Italian tourist (he later retracted this claim). Three years later Cuba accused him of plotting to assassinate Mr Castro at a summit in Panama. He was jailed, but subsequently pardoned.

Prosecutors say that he lied about how he returned to the United States in 2005 in order to protect fellow Cuban exiles in Miami who helped smuggle him in by boat. That may prove to be his undoing. But the failure to extradite him may make other countries warier of collaborating with American justice.

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China

The people's republic in the grip of popular capitalism

Apr 26th 2007 | BEIJING
From The Economist print edition

Satoshi Kambayashi

Tens of millions of Chinese are risking their shirts in a stockmarket frenzy. If it goes wrong, things could get nasty

Get article background

WOULD-BE share punters, keen for a piece of China's booming stockmarket, are queuing to open accounts at a Beijing branch of China Merchants Securities. A busy manager, handing out application forms, says he is taking on 100 new clients a day, perhaps five times as many as a year ago. Bunches of small investors, ranging from students to pensioners, crowd around computer terminals to carry out their trades, keeping an eye on the prices as they flicker across big electronic screens. China's biggest-ever stockmarket boom may be turning into a bubble—and the country's leaders are getting worried.

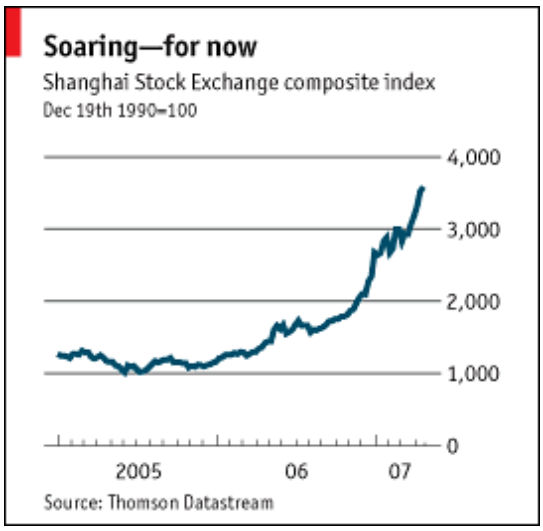
If the bubble were to pop, it could have a bigger impact on social stability than any previous downturn in the stockmarket's 16-year history. There are now more than 91m accounts held by individuals at brokers or in mutual funds. Estimates for the number of investors vary widely. At the height of the last market boom, in 2001, there were 60m accounts but perhaps fewer than 10m investors. There are certainly many millions more now. New accounts at brokers are being opened at a rate of more than 200,000 a day, touching a high of more than 310,000 on April 24th. The total so far this year is more than 8m, which is around ten times as many as in the whole of 2005, when the market began to emerge from a four-year slump.

Among those in the queue is 23-year-old Justin Xing, a university student who says he has invested about 3,600 yuan ($465), or the equivalent of around six months' living expenses, since he opened his first account, at a different branch, two months ago. This sum, he reckons, is now worth around 4,400 yuan. Not a bad return, though those who got in earlier have enjoyed even juicier ones. The Shanghai composite index for yuan and hard-currency shares is now approaching 4,000, a rise of nearly 40% so far this year after a 130% increase in 2006 (see chart).

Some economists fret that share prices are moving far ahead of companies' earnings, to a degree scarily reminiscent of Japan in the late 1980s just before its crash. With the help of new share listings, the combined market value of the Shanghai and Shenzhen exchanges has risen to some 15 trillion yuan ($1.8 trillion), 87% more than at the end of last year and surpassing that of Hong Kong.

The growing involvement of low-income groups such as students and pensioners, who were more cautious during the last bull run, could make a crash more painful. Mr Xing says 20-30% of economics and business students are playing the markets. A

lecture last week at Peking University by China's “stock god” (as the media call him) Lin Yuan, who says he has made some 400m yuan in the stockmarkets since their founding, attracted hundreds of students eager to learn his methods. The younger they start investing, he told his audience, the better.



A big difference between this bull market and the last is the penetration of the internet and mobile telephony. Mr Xing trades shares on a laptop in his dormitory plugged in to a broadband internet connection. The widespread installation of broadband in homes over the past four years has made it easier for pensioners and housewives to join in.

So many employees are spending their time trading stocks online that some companies have introduced fines to deter them. But many continue surreptitiously trading and sharing tips through e-mails, instant messaging and texts. Mobile-telephone users (that is, almost every adult city-dweller) can subscribe to stockmarket alerts and trade shares simply by pressing buttons on their handsets.

Another big change is the ready availability of mortgageable or pawnable assets with which to raise money to buy shares. Since the late 1990s, the privatisation of urban housing has given many people a stake in rapidly appreciating property. And with consumer-price inflation creeping up to a two-year high of 3.3% at the end of March, real interest rates have been around zero or negative this year. This has encouraged the withdrawal of savings from banks. Hou Ning, a Beijing-based analyst, says that in the countryside unlicensed moneylenders have been helping farmers into the markets with unsecured high-interest loans.

China's leaders are worried, but unsure what to do to cool the market. A string of interest-rate rises and increases in banks' reserve requirements have had little effect so far. Like their fellow communists in neighbouring Vietnam, where a similar stockmarket bubble has grown, they know that share gains keep the rising middle class contented and help the state's big privatisation programme. But if tens of millions of urban Chinese lose their shirts, they could turn their anger on the party.

Twice this year—on February 27th and April 19th—the markets have wobbled alarmingly amid rumours of tougher measures to control the flow of cash. The latest upset was caused by figures showing the economy growing even faster than expected: in the first quarter of this year, output was up 11.1% on the same period of last year. But the bulls have quickly returned. Outside the China Merchants Securities branch, a group of investors debates the market's prospects. “It's like a casino set up by the Communist Party,” says one. Another says only fools are still investing. But none has any plans to cash out.

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Afghanistan

The arrival at last of party politics

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Breaking the mould, or just old warlords in new parties?

Get article background

IN THE 18 months since it was elected, Afghanistan's first democratic legislature has been in a peculiar limbo: it is a parliament without parties. Candidates were not allowed to declare party affiliations on the ballot paper. The result has been a chaotic parliament of individuals, often elected on the promise of patronage and by virtue of ethnic affiliation. The parliament has criticised the increasingly isolated president, Hamid Karzai. But its positive achievements have been few.

Now change is stirring. Several alliances with sketchy political platforms are being mooted. The first of these, the National Unity Front, was unveiled in March by a group of parliamentarians and members of the government. It proposes various constitutional reforms, including electing provincial governors directly and creating a new post of prime minister in order to curb the power of the president. The Front denies wanting to be an opposition party, promising to work alongside the government in pursuit of “national unity”.

Sayed Mustafa Kazimi, a former commerce minister and the new group's spokesman, argues that parliament is divided both along ethnic lines and between former anti-Soviet mujahideen and the rest. This, he says, prevents it from dealing adequately with the threats to Afghanistan posed by narcotics, joblessness and corruption. He is right. But the Front, which claims to have the support of 40% of parliament, includes many former warlords, whose continued influence is the bane of Afghanistan. These include Burhanuddin Rabbani, an ethnic-Tajik leader who heads the group; Younis Qanooni, parliament's speaker; General Rashid Dostum, an ethnic-Uzbek leader; and Ismail Khan, now energy minister and formerly boss of the western city of Herat.

It is widely agreed that for Afghanistan to escape its traditions of tribal and ethnic rivalry, it needs political parties. But given how many of the Front's members stand accused of war crimes, it seems an unlikely force for modernisation. Mr Karzai says the new coalition is being financed by “foreign embassies”. And Western diplomats do indeed believe that some of its leading lights receive foreign funding, particularly from Iran, whose meddling in Afghanistan seems to be on the rise. For the first time, America recently accused Iran of supplying weapons to Taliban fighters.

The government also portrays the Front as nothing more than a relaunch of the Tajik-based Northern Alliance, which dominated the interim government of 2001-04 but whose power has since waned. Unlike the Alliance, the Front has pulled in some members of the majority Pushtuns, both former communists and disillusioned tribal leaders from the south who have felt marginalised by the Karzai government. One member who sticks out is Mustafa Zahir, the grandson of the former king, Zahir Shah. Mr Zahir is young, untainted and occupies the same moderate political ground as does Mr Karzai. A fellow Pushtun, his royal links make him a strong potential “unity candidate” for the presidential election due in 2009.

Some observers link the Front's creation to popular demands for the prosecution of suspected war criminals. By banding together in a parliamentary block, they may feel safer. Fears of being brought to justice have risen since international pressure forced Mr Karzai to water down an amnesty bill that went through parliament early this year and would have granted blanket immunity for crimes committed in Afghanistan's bloody civil war.

With too many leaders, of whom too many are tainted by past misdeeds, the Front may not hang together for more than a matter of months. Abdul Hamid Mobarez, a journalist, says that the nearly two-thirds of Afghans younger than 20 “don't want the old leaders any more.” Maybe. But the warlords enjoy support from their various ethnic groups, and many are now elected politicians with the power to dispense patronage. Front or no Front, they will not be an easy bunch to get rid of.

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Indonesia's Aceh province

An uneasy peace

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Ugly incidents disturb the calm

Get article background

ACEH'S separatist war is over, its people seem for now to have settled for autonomy rather than independence from Indonesia and a former leader of the armed separatist movement is now the province's democratically elected leader. But it is too early to be sure that peace will reign perpetually. Five months after Irwandi Yusuf, a former commander in the Free Aceh Movement (GAM), won election as governor, the signs are not good. The worry is that things might get far worse in two years, when most of the international aid pledged after the 2004 Indian Ocean tsunami dries up.

Although a superficial calm reigns and most Acehnese are delighted to be able to walk the streets at night in reasonable safety, recent weeks have seen a wave of worrying incidents. In the most serious, truckloads of Indonesian troops attacked villagers in Bireuen district in reprisal for assaults on two of their soldiers. It was disturbingly reminiscent of the military's harsh tactics during the insurgency, which raged on for three decades until the tsunami brought it to a halt.

United Nations officials in Aceh say the incident may have been due to a misunderstanding involving troops hiring themselves out as workers to supplement their pitiful salaries. But there have also been reports of men with guns accosting aid workers. Pro-Indonesian militias formed during the conflict still train in the province's mountainous centre. Far from disappearing, these have regrouped under a new banner, the Communication Forum for Children of the Nation, or Forkab.

The new provincial government is keen to attract foreign investment. On April 16th it launched a new office to attract overseas businesses. The deputy governor, Muhammad Nazar, said they should not be afraid to come, because the peace deal had made Aceh “the safest province in Indonesia”.

While Banda Aceh, the capital, now boasts a luxury hotel for visiting dignitaries and businessmen, many Acehnese tsunami victims are still living in temporary barracks, awaiting new homes, without jobs. Refugees complain that food and other aid is drying up. Of the $7 billion promised after the tsunami, about $5 billion has already been spent.

The aid has been channelled largely through Indonesia's Aceh Reconstruction and Rehabilitation Agency, which has been defending itself against criticisms of misuse of funds. Many of its employees are not Acehnese and many of the workers building new homes come from other parts of Indonesia.

Aceh's foreign aid will more or less run out in 2009. The same year, new provincial political parties will get their first chance to fight elections, which will be a big test for the whole peace process. Permitting such local parties at all was a major concession from Jakarta in the peace talks. Until now, Indonesia has allowed only parties organised on a nationwide basis to contest elections. Indonesian nationalists fear that, here and in other breakaway provinces, local parties could be a stepping-stone to full independence, something many Acehnese still privately covet.

GAM has been reborn as the Aceh Transitional Committee and its rebels have demobilised and handed over their weapons. But much mistrust remains between it and the Indonesian authorities. For example, the rebel movement has not disclosed the true names of all its members. Its leaders say their representatives came out into the open during earlier attempts to broker peace, only to be hunted down and shot after the talks broke down.

International peace monitors might help. But the European Union-led Aceh Monitoring Mission, which oversaw the early stages of the peace process, has now gone. A charitable organisation with experience in conflict resolution, Interpeace, is supposed to take on a similar role but is not yet fully ready and will not have the same resources. The top UN official in Banda Aceh, Satya Sundar Tripathi, says that what is

needed is another big commitment of funds by the foreign donors—beyond that promised to help Aceh recover from the tsunami—to support and develop the peace. So far, however, that commitment has not come. And money does not buy trust, the commodity that is perhaps most needed.

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The Philippines' elections

Celebrity big ballot

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A daft voting system keeps politics trivial

VOTERS taking part in the Philippines' mid-term elections on May 14th will be put through an absurd ordeal. They must memorise the names of up to 18 candidates for various positions in national and local government and enter these by hand on a blank ballot-paper. What this means is that those with the best-known names, not necessarily the best policies, tend to win.

The biggest challenge is the Senate, for which voters should choose candidates for all of the 12 seats (of 24) up for grabs. Both the governing coalition and the opposition have filled their slates with the offspring of statesmen, the leaders of unsuccessful but attention-grabbing military coups, film stars—and the occasional career politician.

In the lower house, the star-studded cast includes Manny Pacquiao, the World Boxing Council's reigning super-featherweight champion, fresh from his victory earlier this month against Mexico's Jorge Solis. Mr Pacquiao insists that, despite lacking political experience, he has serious policies, in particular on reducing juvenile delinquency. However, the presence of all these stars means that political campaigning in the Philippines is an all-singing, all-dancing sideshow, more concerned with parading the candidates' personalities than discussing the country's many problems.

The opposition, calling itself the Genuine Opposition (GO), wants voters simply to treat the elections as a referendum on President Gloria Macapagal Arroyo. “Go” is the message it wants to send her. If it wins one-third of lower-house seats, it will be able to have another try at impeaching Mrs Arroyo for allegedly fiddling the presidential election three years ago. (Totting up the handwritten names on 30m-plus ballots is a laborious process, prone to manipulation.)

Mrs Arroyo's coalition, Team Unity, wants a strong mandate to unclog the corridors of power by changing the constitution to replace presidential rule with parliamentary government. But it has kept quiet about this issue, knowing that any talk of changing the constitution inevitably stokes public suspicion that it is some sort of plot to establish an elected dictatorship. Last December the threat of mass public protests forced Mrs Arroyo to drop an attempt to ram the charter-change through Congress.

Opinion polls suggest that the elections will leave the opposition dominant in the Senate and the governing coalition dominant in the House of Representatives—approximately the status quo. If so, neither the opposition nor the government will get what they want. This would be welcome, since both impeachment and sweeping constitutional reform are distractions the Philippines could do without. What it clearly does need, though, is a much simpler voting system, so that mere name-recognition is no longer such a crucial determinant of who gets elected.

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Bhutan's mock election

Voting for the thunder dragon

Apr 26th 2007 | PUNAKA AND THIMPU
From The Economist print edition

Happy with their king's absolute rule, most Bhutanese wonder why he is giving them democracy. A minority wonders why it is being left out

IF ONE man could have been expected to support the democratic change sweeping Bhutan, a remote and eccentric Himalayan kingdom, it was Kunzang Wangdi. But as the chief election commissioner queued to vote in Thimpu on April 21st, in a practice run for an inaugural election due next year, he looked mildly reluctant.

Could it be that even Mr Wangdi would prefer to remain under the heel of King Jigme Singye Wangchuck, who ruled Bhutan for 34 years before, last December, passing his throne to one of his sons and handing power to the people? “Yes, personally, because you can't have leaders like that from the people,” said Mr Wangdi, absent-mindedly acknowledging the bows of queuing commoners. For an official of his rank, this is a stiff-legged stoop, with fingers outstretched to mid-shin.

Reuters

A full dress rehearsal for Bhutanese democracy

King Wangchuck—who warrants a special bow, with both hands raking the ground—had an impressive reign. At his accession, the average Bhutanese died at 40 after a life of uneased toil. Continuing a modernisation begun by his father, and underwritten by foreign aid, the king oversaw a transformation. Life expectancy for the 700,000 Bhutanese is now 64 years. The economy grew by 12% last year; GDP per person is reckoned to be $1,400—twice that of India. These are remarkable successes for a monarch committed to the pursuit, in his phrasing, of Gross National Happiness—a policy most constructively defined as favouring sustainable development over growth at any cost.

For most Bhutanese, King Wangchuck's imposition of democracy is therefore unwelcome. Only 125,000 people voted in the mock election, around 28% of the total eligible. Most turned out—in the elegant knee-length tunics and full-length dresses that Bhutanese must wear in public—because they were told the king wished it. Of the four fictitious parties they were asked to choose between, Druk (“Thunder Dragon”) Yellow, which stands for “culture and tradition” and bears the royal colour, won by a landslide. “It's too soon to bring democracy,” said Thinlay Dorjee, a businessman queuing to vote in Thimpu, a capital of finely-tiled roofs, monasteries and, by next year, the world's biggest statue, of the Buddha. “We should stay beneath our king who has given us so much.”

In fact, Mr Dorjee will more or less have his wish. Bhutan's modernisation programme is incremental and royally-guided. At some point, its people were likely to demand reform. But by controlling the pace of change, King Wangchuck has done better than the discredited King Gyanendra of Nepal, another Himalayan kingdom, whose absolute rule was swept away by protests last year.

Since 1998 Bhutan has been run by a council of royally approved ministers. Laws have been passed by a parliament whose members are either elected, or Buddhist clergy or picked by the king. Even after next year's election, the new king, Jigme Khesar Wangchuck, an Oxford-educated 27-year-old, will control the army and appoint key functionaries. The head of the new (genuine) main party, the People's Democratic Party, is his uncle. The king will be impeachable—with the support of two-thirds of an elected parliament—but this is currently unimaginable.

Young King Wangchuck and his clan will also keep a grip on the economy. Two more royal uncles head the country's two biggest conglomerates. Otherwise, the private sector is tiny. Growth is driven by state-owned hydroelectric power generation; the sale of surplus power to India accounts for 87.5% of Bhutan's exports. Last month saw the opening of an Indian-funded 1,020MW power station, more than tripling total

generation. Yet this remains a small fraction of Bhutan's hydropower potential, estimated at 30,000MW. “We consider this our black gold,” says Karma Dorjee, the chief official in the trade and commerce ministry.

It is premature to see the Bhutanese as Himalayan versions of the oil-rich Gulf Arabs. As India buys more power from Bhutan, it will reduce the massive aid it gives the country, masking the benefit. And with 90% of the population in peasant agriculture, most Bhutanese remain poor. Nonetheless, many are already too pampered by the government—which spends 25% of its budget on health and education—to accept the lowest-paying jobs. To build roads and harvest fields, Bhutan imports up to 100,000 migrant workers from India's poorest northern states. Breaking stones by the road in sullen drudgery for two dollars a day, they are an unhappy contrast with the gaily-clad Bhutanese.

Worse, many of the road-builders are in fact Bhutanese, though Nepali-speaking and Hindu. Some of this minority—about 20% of the population—launched an insurrection in the 1990s, and all have suffered for it. The violence was partly a response to a racist policy of Bhutanisation, which included forcing Nepali-speakers to wear the Buddhists' costume and prove their right to citizenship by obeying strict rules. As a result, many lost this right. Some 60,000 fled to refugee camps in Nepal, where they languish. Many who stayed—including the relatives of the fugitives, whom the government deems terrorists—are denied citizenship. They are thereby ineligible for government jobs, or suffrage.

“It makes me angry,” says Thagi Maya, a road-builder, beneath the soaring walls and golden roofs of a 17th-century fortress in Punaka, a precipitous three-hour drive from Thimpu. Ms Maya and her husband were stripped of their rights after her uncle fled to Nepal. Her main hope is that her two children, who are at least permitted schooling, will escape the curse.

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The United States in the Middle East

Weakness—or a new realism?

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David Simonds

Why the Americans are having to adjust their policies in the region

AS EVERYONE knows, America is in trouble in Iraq. It is not just the seemingly inexorable rise in civilian casualties. Even when America tries to do something nice, such as building barriers to protect vulnerable districts of Baghdad, people seem to jeer at it (see article). Recent opinion polls suggest that three-quarters of Iraqis think America plays a “negative role” in their country; most want American troops to go. The running row between President George Bush and his Democratic opponents in Congress over a timetable for withdrawal of American troops is strengthening the perception in the Middle East of an administration at bay.

But America's troubles there do not stop at Iraq's borders. An opinion survey in four Muslim countries (Egypt, Morocco, Pakistan and Indonesia) this week shows 79% of respondents believing that America aims to divide and weaken the Muslim world. Big majorities want American troops out of all Muslim countries. Most strikingly, in Egypt, one of America's closest Arab allies, 91% endorse attacks on American troops in Iraq and Afghanistan.

Such attitudes are reflected not just in casual conversation but in the behaviour of governments in the region, including ones traditionally tied to America. Exasperation with the lone superpower, combined with a sense that the Iraq debacle has sapped its will, is stiffening resistance to American policies and emboldening others to show their hands. Over issues ranging from Iran's nuclear ambitions to Sudan's intransigence over Darfur, from the Arab-Israeli conflict to the question of democratic reform, the pressure is often less on local governments to meet American wishes than on Mr Bush's administration to moderate its own policies.

In recent years, America has studiously—arrogantly, in many eyes—rejected dealings with states or parties it considers hostile. But after nudging from his European allies, Mr Bush agreed in principle last year that America would talk directly to Iran once the Islamic Republic suspended its uranium enrichment in line with international demands. Recognising that Iran cannot be ignored, American officials are working hard to involve Iran in multilateral talks on Iraq, though it is not clear whether Iran will attend the next round, due in Egypt on May 3rd-4th.

America still chastises Syria, accusing it of meddling in Iraq and Lebanon. But Syria's relations with European as well as Arab countries, including Iraq, are thawing; a delegation from America's Congress recently visited Damascus despite White House objections. It is probably a matter of time before Syria, Iran's closest regional friend, comes back from isolation.

In the Palestinian territories, a year-long, American-led boycott has failed to dislodge the elected government led by Hamas, a radical Islamist party, prompting Saudi Arabia to intervene by sponsoring a national-unity government that diluted Hamas's control but preserved its rejectionist stand towards Israel. Over Israel's objections, American officials have now re-engaged with the Palestinian government, albeit avoiding those aligned with Hamas and continuing to embrace America's preferred interlocutor, the Palestinian president, Mahmoud Abbas. While merely noting the Arab peace initiative when it was first proposed in 2002, Mr Bush's officials strongly endorsed its relaunch last month at an Arab summit.

Even American policy towards Sudan has shifted, at any rate tactically. After long insisting that the government in Khartoum accept a robust UN peacekeeping force in Darfur, America recently acquiesced in a deal for a far smaller force, under a “hybrid” UN-African Union command—a Sudanese concession granted more because of Chinese than American pressure. But at the same time Mr Bush says that America will impose a range of sanctions against Sudan if its government does not “meet its obligations” over Darfur in short order.

Repression rules OK?

Perhaps the plainest shift is over democratic reform. Once touted as a “forward strategy for freedom”, American policy consisted of badgering repressive governments into opening political space, in the hope that democracy was the surest foil to extremism of the al-Qaeda kind. Such pressure appeared to succeed, a few years ago, in shaming some autocracies into, for example, holding elections of a kind.

More recently, however, the political tide appears to have flowed back against reform. Some governments have concluded that America's bark is worse than its bite, while in other countries a lot of people may now reckon that, considering the outcome of American-imposed democracy in Iraq, a little oppression may be a worthwhile price for social peace.

Syria, for example, recently sentenced the country's best-known human-rights advocate to five years in prison for “spreading false information”. Its budding reform movement was floundering anyway, with campaigners fearing being dubbed American stooges. Many Syrians, sensitive to their own religious and ethnic diversity and conscious of sectarian mayhem next-door in Iraq, have reacted passively to their government's latest crackdown. Egypt's government appears almost to relish keeping Ayman Nour, runner-up to Hosni Mubarak in Egypt's last presidential election (in 2005), in prison under trumped-up charges—just to show it can fend off American scolding. Reforms in arch-autocratic Saudi Arabia have stalled completely, with no audible protest from Washington.

Rumbling and grumbling

Perhaps more serious than such thwarting of American hopes is the rumbling that can be heard in the chanceries of its regional allies. Turkey, for instance, has rarely found itself at such cross-purposes with America since joining NATO in 1952. Over Iraq it finds itself more in tune with Iran and Syria, due to worries about its own large, restive Kurdish minority. Egypt and Jordan have close military ties to America too, but their governments must constantly parry sniping from such populist, exuberantly anti-American opponents as the Muslim Brotherhood.

Yet America's military footprint in the region remains huge. For the oil-rich sparsely-peopled Persian Gulf monarchies, it is a vital protector. The Americans have close military ties to Bahrain, Kuwait, Oman, Qatar and the United Arab Emirates, and are strongly beefing up military co-operation with an array of countries in the Sahelian belt in their war against Islamist terrorism. Egypt, Jordan and Israel still bank on American aid, and stand as symbols that the rewards of friendship with America can be large. Despite the emergence of Europe, China and India as soft powers, none has the equipment or the will to take on the problem-tackling role that only America traditionally performs in the region.

Do these shifts in American policy reveal weakness, flexibility or a renewed realism? As the neo-cons in Washington take a back seat, the State Department under Condoleezza Rice may be adopting less abrasive policies in the region. “They've come to realise that the multilateral approach can be more effective,” says an Arab ambassador.

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Iraq

A row over a wall

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Do the people of Baghdad want security barriers? Yes and no

COMMANDERS of the American-led coalition in Iraq admit they cannot stop the car bombs that regularly go off in the streets and markets of Baghdad, killing and maiming dozens at a time and feeding a bloody sectarian tit-for-tat. The best they say they can do is to bring the carnage down to what they grimly call a “manageable level”, where it does not totally dominate life and politics. To that end, a group of Iraqi officials visited Northern Ireland last year to see how another divided community handled terrorism, in part by building large walls between Protestant and Catholic urban districts.

AFP

Alive in a ghetto or free to die?

For the past year, American officers have been experimenting with similar, smaller barriers in Baghdad, protecting markets or in one case putting up a knee-high traffic barrier to stop militias from the heavily Shia part of Ghazaliya, a western suburb of Baghdad, raiding the mainly Sunni part. The Americans say the Sunnis love the barrier, while the Shias complain it prevents them from getting to market.

Last week, however, an American military spokesman admitted that an entire district of Baghdad, five kilometres (3.5 miles) in circumference, was being walled in with a series of concrete rectangles, each four metres high and weighing seven tonnes and known as “Bremer walls”, after Iraq's former American proconsul.

The district in question is Adhamiya, one of the Sunnis' few remaining enclaves on the city's eastern side, a base for Sunni insurgents and a target for Shia militias. Four other districts may be walled off too. The Americans say they squared the district councils beforehand. On patrols in Adhamiya, American troops have been besieged with complaints from locals that they do too little to protect them and that they could not venture out of their district to go to work or hospital for fear of being abducted and killed by militias.

But no sooner had the plan become public than a storm of protest swelled up across the political spectrum. Sunni and Shia politicians alike denounced the barrier for splitting Baghdad into cantons and widening the sectarian gap. Iraq's press compared it to “the apartheid wall” dividing Israel from the West Bank. A radical Shia leader, Muqtada al-Sadr, promised to stand “arm in arm” with Sunnis to “defend Adhamiya and other districts where [the Americans] want to segregate us”, even though his Mahdi Army militia have often attacked Baghdad's Sunni communities. In Adhamiya itself, some 2,000 residents marched against the wall, crying out that they would not let their district be turned into “another Green Zone”, the sealed-off area where Iraq's government and the American headquarters are sheltered. Some Iraqis say that nostalgia for a united Iraq, plus a suspicion that the Americans intended all along to divide

and conquer, still eclipses whatever security benefits the wall's local proponents think it may bring.

The planned wall's future is unclear. The prime minister, Nuri al-Maliki, said that construction of the Adhamiya barrier would stop, but his military commanders hinted that it might go on, perhaps with less imposing barriers. The American ambassador said he would “respect” Mr Maliki's wishes, without explicitly saying that the wall would come down.

Baghdad may end up divided into fortified sectarian enclaves anyway. The UN said this week that at least 700,000 people had been driven from their homes since sectarian mayhem rose a year ago, though a recent beefed-up Iraqi and American troop presence in the capital may have reversed the tide; thousands of displaced residents have apparently returned home. In any event, the furore over the wall suggests that, despite tens of thousands of deaths, many Iraqis yearn for a united Baghdad. Despite Sunni and Shia sectarian rage, Iraqi nationalism is still potent.

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Somalia

It just gets worse

Apr 26th 2007 | ADDIS ABABA
From The Economist print edition

War again, holy and unholy

Get article background

THE UN says that at least 321,000 Somalis have fled their capital, Mogadishu, in the recent weeks of fighting there. Thousands more are trapped along the frontlines inside the city, under fire, packed in with rotting corpses, and unable to find a way out. At least 1,300 have been killed so far this month, most of them civilians. Ethiopian artillery has demolished chunks of the already rubble-strewn city. But it is unclear if the shelling has squelched an Islamist-inspired insurgency. Probably not.

The Somali transitional government, backed by Ethiopia, says it is in a do-or-die struggle with al-Qaeda. A few more days of shelling, it says, and it will have the upper hand. But the insurgents are getting stronger, striking with machinegunners, snipers and suicide-bombers, then melting back into their communities. A contingent of 1,000-plus Ugandan peacekeepers under African Union command has remained impotently confined to barracks.

AP

An Osama boy or just an ordinary gunman?

Most of the displaced civilians are encamped on Mogadishu's outskirts, where the scenes are medieval. People lack water, food and shelter. Cholera has broken out. The sick sometimes have to pay rent even to sit in the shade of trees. Things will get worse with the rains, which have started. Aid agencies say people will soon start dying in large numbers. Some reckon Somalia is facing its biggest humanitarian crisis, worse than in the early 1990s, when the state collapsed amid famine and slaughter.

An additional worry this time is that Somalia may be drawn into the international *jihad*. Somali Islamists are getting training and arms from Eritrea, which wants to fight a proxy war with Ethiopia in Somalia, and money from Arabs in the Middle East. Radical Muslims around the world are likely to blame supposedly Christian Ethiopia and America for the mayhem in Mogadishu. That ignores the fact that the Ethiopians were invited in by a Muslim Somali government and have been longing to leave ever since.

America can be more heavily criticised for subordinating Somali interests to its own desire to catch a handful of al-Qaeda men who may (or may not) have been hiding in Mogadishu. None has been caught, many innocents have died in air strikes, and anti-American feeling has deepened. Western, especially European, diplomats watching Somalia from Nairobi, the capital of Kenya to the south, have sounded the alarm. Their governments have done little.

That reflects a feeling of fatigue among outsiders who have been trying for years to persuade the Somalis to negotiate a new deal for themselves. The officially-recognised but feeble Somali transitional government, the elders of the Hawiye clan (the main one in Mogadishu) and various prominent members of the far-flung Somali diaspora have all failed to accommodate each other and are largely responsible for the present fighting.

The Somali government has been particularly weak. It has used the latest offensive partly to settle scores with its enemies. Its description of the insurgents as al-Qaeda is self-serving. In reality, they include disaffected Hawiye people, profiteers, and nationalists who cannot bear having Ethiopians on Somali soil. There may be a few hundred jihadist fighters and perhaps a dozen or so who can properly be classified as al-Qaeda. But the government's failure to make concessions to the Hawiye raises al-Qaeda's hope that Somalia may become a hub of instability and a new front in a holy war against Ethiopia—and the West. A ceasefire proposed by America looks unlikely to take hold. A national reconciliation conference has been put off until the summer. Ferocious fighting between clans has broken out in

Kismayo, a southern port. More Somalis, trying desperately to reach Yemen across the Red Sea in small boats, are being drowned off Somalia's northern coast.

This is all bad for Ethiopia. Morale among its troops is dropping; some have deserted. Another war with Eritrea is in the offing, along with terrorism by separatist and Islamist groups at home. The insurgency in Mogadishu has pepped up the Ogaden National Liberation Front, an ethnic-Somali group fighting for the autonomy of the Ogaden region, in eastern Ethiopia; this week it attacked a Chinese oil-exploration facility in the desert there, killing some 65 Ethiopians and nine Chinese, apparently with help from Eritrean intelligence. In sum, the entire Horn of Africa is back on edge.

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The Gambia

Presidential miracle cure

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An authoritarian ruler who says he can cure AIDS

PRESIDENT YAHYA JAMMEH, who took power in a coup 13 years ago, claims to have outstripped the scientists and discovered a cure for HIV/AIDS. His secret concoction of seven herbs can annihilate the virus, he says, within three days. Gambian state television repeatedly shows the diminutive president applying his remedy to patients' heads, as he recites verses from the Koran.

More than 45 people are said to have completed a course of his treatment, with a new batch of 38 now undergoing it. His health minister, Dr Tamsir Mbowe, says that ten of the first group have shed the virus, while 17 have “very low viral counts”.

The president's claims have been dismissed by most AIDS specialists around the world. But when a UN official in the Gambia, Fadzai Gwaradzimba, publicly expressed scepticism, she had to leave. Dr Mbowe denounced her as “an illiterate who does not know anything about medicine”. Her comments were “very irresponsible”. The Gambian authorities were particularly annoyed by her suggestion that the president's claims could encourage risky sexual behaviour.

Mr Jammeh, who is proud of coming from a long line of herbalists, treats AIDS sufferers on Thursdays; on Saturdays he gets to grips with asthmatics, some 3,000 of whom he claims to have helped. Now he intends to start curing diabetics.

Quite a few Gambians seem inclined to give their herbal president a chance to show what he can do. But those who disagree with his ideas, medical or political, get short shrift. Human-rights campaigners, opposition politicians and journalists are often harassed; a leading editor, Deyda Hydara, was shot dead in 2004. Before the last election, in January, Mr Jammeh spoke of ruling for four decades; in the past, he has given warning that anyone “disturbing the peace or stability of the nation” would be “buried six feet deep”.

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The French presidential election

Seconds away, round two

Apr 26th 2007 | PARIS
From The Economist print edition

Peter Schrank

The odds favour Nicolas Sarkozy, but the contest is far from over

Get article background

FOR the first time in a quarter-century, the French are heading into a run-off in their presidential election, on May 6th, with a genuine choice between candidates of the left and the right. After a first-round poll marked by the highest turnout since 1974, voters put the centre-right Nicolas Sarkozy in the lead, with 31.2%, followed by the Socialists' Ségolène Royal, who took 25.9%. No sooner had the results been declared than the pair hit the campaign trail again, both trying to seduce the centre.

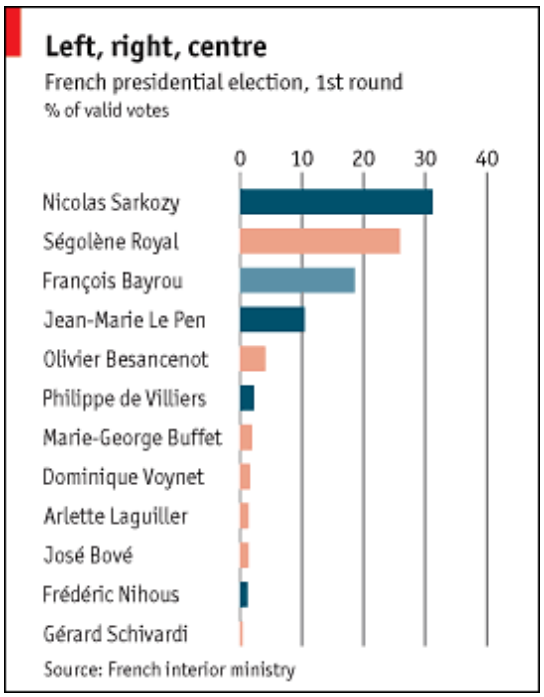
The results were, as Mr Sarkozy declared, a “victory for our democracy”. Not only was the turnout huge (84%, against 64% at the 2004 American presidential election), with voters queuing patiently in blazing sunshine across the country; but the election was also impeccably organised, with official results coming only hours after the polls closed. By pushing the far right Jean-Marie Le Pen into fourth place, the voters also put behind them the mortification of 2002, when the National Front leader, to France's shame, got into the run-off.

Two elements stand out in the result. First, it was a resounding vote for the mainstream candidates. The top three—Mr Sarkozy, Ms Royal and the centrist François Bayrou—bagged 76% between them, compared with 47% for their counterparts (plus a liberal, Alain Madelin) in 2002. Mr Sarkozy's vote was the highest for a centre-right candidate since 1974, and ten points more than Jacques Chirac ever managed in a first round. Not one of the six candidates to the left of Ms Royal reached the 5% threshold to qualify for full reimbursement of campaign expenses—the communist took only 1.9%. For the 78-year-old Mr Le Pen, the result was a crushing blow, his worst since 1974, ending what will surely be his final presidential campaign.

In short, this election has put paid to the idea that the French are wedded to Marxist-inspired hard-left idealism or to extremist nationalism. If mainstream politicians are inspiring enough, which in 2002 Mr Chirac and the Socialist Lionel Jospin were not, and if they are ready to take on taboo questions of national identity, as both Mr Sarkozy and Ms Royal did, the voters are ready to ditch the folly of the fringes.

Second, Mr Bayrou's strong showing means that the run-off will now be determined largely by the centre. He failed to get the second-round place he dreamt of, but his 18.6% was still a big jump from the 6.8% he managed in 2002. If voters stick with

their first-round choices, each candidate needs a big chunk of Mr Bayrou's 6.8m voters to secure a majority. The polls are contradictory, but most suggest that the centrist electorate is divided between the two. If Mr Bayrou's vote splits equally, and all the hard left voters back her, this would still leave Ms Royal with only 45.7%. If Mr Sarkozy picks up half of the centrist vote, along with, say, 80% of the far right, he already scrapes a majority. It seems to be Mr Sarkozy's election to lose: Ms Royal's task is by far the harder.



Despite frantic discussions with each side, Mr Bayrou said this week that he would endorse neither candidate. Indeed, after bitterly attacking both, he said he would build a new centrist party, the Democratic Party, for the parliamentary election in June. His party's 27 deputies are torn. Many were elected on votes from the right, in constituencies where they were unopposed by Mr Sarkozy's UMP party. If they do not back him in the second round, threatened François Fillon, Mr Sarkozy's right-hand man and front-runner to be his prime minister, the UMP "will run candidates in all constituencies".

Whatever centrist politicians decide, it may not sway their voters. Mr Bayrou drew an eclectic mix of moderate Socialists and Christian Democrats, who are unlikely to follow instructions. As important will be the candidates' performances next week, notably in a two-hour televised debate on May 2nd. In the first round, both candidates spent weeks sedulously cultivating their faithful. The challenge now is to conduct an abrupt about-turn to the centre without losing credibility.

Ms Royal's published programme consists of a series of public-spending commitments, including a big subsidised jobs plan, and a promise to raise the minimum wage by 20%. She has given no details on how to pay for this, besides facile pledges to "eliminate waste" and "reorganise the bureaucracy". This week, however, she was trying to reinvent herself as the face of a modernised centre-left. Having ruled out a first-round deal with Mr Bayrou because he was a man of the right, she issued a public (but unheeded) call for talks with him. She also posed with Jacques Delors, a moderate former European Commission head whom Mr Bayrou has praised, and invited Romano Prodi, Italy's centre-left prime minister, to a rally in Lyon. In one speech, she urged her supporters to adopt "new ideas" and to endorse "economic efficiency". In Montpellier, wearing a tangerine-coloured dress that reflected Mr Bayrou's colours, she urged France to embrace "international competition".

For his part, Mr Sarkozy's task is to charm those in the centre who were put off by his relentlessly populist quest for the far right vote in the first round. As a strategy, slogans such as "those who don't love France, don't have to stay" turned out to be highly effective, despite the reservations of some advisers. The geography of Mr Sarkozy's first-round vote mirrors Mr Le Pen's in 2002, with high scores in the south and east. Mr Sarkozy got fully 43.6% in the Mediterranean department of Alpes-Maritimes, for instance, which in 2002 put Mr Le Pen top, with 26%.

For the second round, however, this leaves Mr Sarkozy with a daunting job of persuading voters that he is not just a tough guy but also a nice one. Hence his promises this week "to protect" people, and to "unite the French around a new dream". He even injected a splash of red into his campaign set, doubtless meant as a symbol of openness.

It will be a fierce fight. Although most polls put Mr Sarkozy ahead, the margin is tight. Ms Royal will be keen to exploit lingering fears about Mr Sarkozy's divisiveness, however subliminally. Whenever she uses the word "brutal" to talk of Mr Sarkozy's reform plans, she is hinting as much at his personality as at his half-embrace of free-market reforms. Ms Royal is doubtless right that there is a powerful *tout sauf Sarkozy* feeling among a sizeable part of the electorate, especially in the troubled *banlieues*. Under the Fifth Republic, the second round has often been used by voters to eliminate the candidate whom they most dislike. But such a strategy is unlikely to be enough on its own to keep Mr Sarkozy from victory.

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Russia after Boris Yeltsin

Crocodile tears

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Few Russians truly mourn Boris Yeltsin—yet

Get article background

THE distinctively puffy features poked out from the open casket in which Boris Yeltsin lay after his death on April 23rd. His family wept as ordinary Russians filed past, crossing themselves. Bass-voiced Orthodox priests beseeched God to forgive the sins of Russia's first president. A Kremlin honour guard stood by.

For all their hardness, the Russians are a sentimental lot. Thousands of Muscovites queued to pay their respects to Mr Yeltsin at the Cathedral of Christ the Saviour (blown up under Stalin, rebuilt under Mr Yeltsin). They are also devoutly patriotic. “He was our president,” said a mourner from Mr Yeltsin's native Urals. “History will decide if he was right or wrong.” Some in the queue had stood with Mr Yeltsin outside Russia's parliament in 1991, to face down a hardline putsch. “He freed our souls,” said one weepy old woman.

Yet Mr Yeltsin's great rival, Mikhail Gorbachev, reflected the mood of most Russians when, amid the polite tributes and saccharine television montages, he alluded to the dead man's “serious mistakes”. Mr Yeltsin's had been a “tragic fate”, said Mr Gorbachev. Even before he left office, a majority of Russians, from Kaliningrad to Kamchatka, despised him, partly on account of the raging inflation, unpaid salaries and oligarchic larceny of his rule, but even more for the shame many thought he brought on Russia through his clownish drunkenness.

In part Mr Yeltsin's poor reputation has been created by the propaganda of Russia's second president, Vladimir Putin (whose state-of-the-nation address was put back a day so as to accommodate the funeral). Mr Putin's Kremlin constantly contrasts the turbulence of the Yeltsin years with the supposed stability that has succeeded it. But some would argue that there has been almost as much continuity as change, positive or otherwise.

Like Mr Yeltsin, Mr Putin has preached against corruption but permitted it on a vast scale, promising “a dictatorship of the law” but practising lawlessness. Like Mr Yeltsin he has been surrounded by a small Kremlin clique and has handed oversight of chunks of Russia's economy to a select few, albeit via state-owned companies rather than dodgy privatisations. And although Mr Yeltsin boasted democratic credentials that Mr Putin cannot—notably his tolerance of critical media and his devolution of power to Russia's regions—he too could be irascibly nationalistic, meddling in Russia's ex-Soviet neighbours and taking liberties with elections. Not only did he create conditions in which Russians welcomed Mr Putin's authoritarianism: it was Mr Yeltsin who anointed the KGB man as his successor, first making him prime minister in August 1999, and then helping him into the presidency by leaving office early.

Mr Yeltsin spent his early winters in a Urals hut (see article). His last journey was from the cathedral, attended by Bill Clinton, George Bush senior, Sir John Major, an ashen-faced Mr Putin and others, to Novodevichy cemetery, the top burial place after the Kremlin wall. At the graveside, his widow and daughters clung to his corpse. A gun carriage conveyed him; a gunfire salute accompanied him into the earth. The choreography had to be improvised: Russians had not buried a leader with Orthodox rites since 1894, and never before a democratically elected one. Time will tell whether they get to bury many more.

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Turkey's president

Discretion before valour

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The prime minister puts his foreign minister forward as president

TURKEY'S European Union dreams almost died on December 17th 2004 at a Brussels summit. After hours of wrangling over Cyprus, the mildly Islamist Turkish prime minister, Recep Tayyip Erdogan, stormed out. Only one man could persuade him to return: Abdullah Gul, his foreign minister. The row was resolved and Turkey's EU candidacy was confirmed.

Now the doggedly pro-European Mr Gul is poised to become president, after Mr Erdogan anointed him as the ruling AK Party candidate to replace the fiercely secular Ahmet Necdet Sezer next month. Ali Babacan, the equally pro-European economy minister, is expected to replace Mr Gul. The decision came after much opposition to Mr Erdogan's own presidential ambitions, culminating in a huge anti-government protest on April 14th.

Deniz Baykal, leader of the main secular opposition CHP party, was swift to claim victory. He said that Mr Erdogan had chickened out in the face of resistance to a trained imam occupying a post once filled by Ataturk. The AK Party retorted that Mr Erdogan had “sacrificed” himself to lead his party to another big victory in November's parliamentary election.

Whatever his reasons, Mr Erdogan's decision will reshape Turkish politics. Secular doomsayers claim that, with the presidency, the government and parliament under its belt, the AK Party will impose an Islamist agenda unhindered. In Mr Gul's wife, Hayrunnisa, Turkey will for the first time have a first lady who covers herself with an Islamic headscarf, they add—a direct attack on Ataturk's secularism.

Yet even if such forebodings prove justified, the secularists are themselves partly to blame. For decades they relied on the army to hold the Islamists at bay as they enriched themselves, bringing the country to the edge of financial ruin in 2001. Happily, although the chief of the general staff, General Yasar Buyukanit, harrumphed, he refused publicly to disavow Mr Erdogan's potential candidacy. Mr Baykal, who has dominated the CHP for 15 years, shows no similar signs of moving with the times. Instead of offering an alternative vision, he has built a career on scaremongering. The EU is bent on dismembering Turkey, the Americans want to dilute Ataturk's legacy, the CIA is plotting to kill him—these are his tired mantras. Mr Baykal vows to mount a legal challenge to Mr Gul's election, which two smaller opposition parties may join.

Mr Baykal's shrillness is drowning out legitimate fears about Turkey moving to a more restrictive social environment because of a more aggressive piety. This week's attempted murder of the head of Turkey's secular education board was troubling. Yet the AK Party has a big lead in opinion polls, and a good chance of staying in power in November.

Much may depend on whether Mr Erdogan can strengthen his hold over the political centre, and on how independent President Gul proves to be. It would help if, for now, he turns a deaf ear to pious constituents' demands to relax bans on the headscarf and to ease university entrance for graduates of Islamic clerical training schools. As one top official puts it, “digesting Hayrunnisa's headscarf will take some time”—not least for the army officers who will share the presidential complex.

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Romanian politics

A captain faces the storm

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Can an ex-communist country reform after joining the European Union?

AGAINST the darkening background of ex-communist politics, President Traian Basescu of Romania was something of a star. He identified bad government and corruption as the biggest obstacles to his country's accession to the European Union, and he forcefully—his foes say ruthlessly—pushed reforms of the justice system and the public services.

Foreigners liked the former sea captain's personal style: a mixture of mischievous humour and straight talk. Romanians liked him too, though his popularity rating has fallen to 41%, down from 49% in March and 57% last November. But most Romanian politicians detest Mr Basescu, finding him confrontational, devious and—perhaps most important—threatening. Last month the coalition that took the country into the EU on January 1st fell apart. Almost the first act of the incoming government was to push through a vote to suspend the president from office. Romanians will vote in a referendum on May 19th on whether to impeach him.

Romania's political theatre has turned positively operatic. The electoral law is badly drafted. It says that a majority of the electorate must vote for impeachment for the poll to be valid. That is a high bar, so parliament has just changed the rules. Now it will decide what happens if the impeachment fails. Mr Basescu will be lucky to return to his hill-top palace soon.

Mr Basescu has played a strong hand badly. He has been too dependent on the country's powerful security and intelligence services. Too often he has chosen cronies and nonentities as advisers; they have tended to quit after a few months, exhausted and exasperated by his short attention span and frequent changes of mind. His colourful private life has created grist for Romania's active rumour mill.

He has also picked his fights poorly. He quarrelled at once with the new government, obstinately refusing to accept its nominee as foreign minister, Adrian Cioroianu. The parliamentary vote for his impeachment was a striking 322 to 108. Rather than seek compromise, Mr Basescu tends to take to the airwaves. “I will not negotiate,” he said before last week's vote. “I am not that interested in my political comfort. I will not stop talking either.”

Yet for all Mr Basescu's own shortcomings, his adversaries seem a lot worse. The acting president is the speaker of the Senate, Nicolae Vacaroiu. He led the authoritarian ex-communist government that ruled the country, badly, from 1992 to 1996. The new minority government of Liberals and ethnic Hungarians is stuffed with youthful party hacks. It also epitomises everything that has held Romania back. According to the Romanian Academic Society, the country's leading clean-government campaign, seven ministers breach the terms of the “Coalition for a Clean Parliament”, an anti-corruption pact agreed with all main Romanian parties in 2004. Some have dodgy ties to powerful businesses. Another received a colossal book advance from a mysterious source.

Outsiders are nervous about the second-biggest new EU member. The EU is pressing for a new ethics watchdog to be set up. The American secretary of state, Condoleezza Rice, refused to meet Mr Cioroianu this week. A NATO summit planned next year has been shifted, probably to Portugal. Boosted by EU membership, Romania's economy is booming. But its political stock is falling fast.

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Italian education

Grey power

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The biggest fault in Italian education is that there are too many old teachers

THE Bar Cristal, beneath an elevated section of Rome's inner ringway, caters mostly to travellers from the nearby bus and rail stations. But by 7.30am most days, it is packed with teachers, many of whom have come from as far away as Naples. They are part of Italy's army of 150,000 casual teachers, waiting for a call to teach in a short-staffed school. Darting between classrooms, they tack together take-home pay of €1,100 ($1,500) a month.

Earlier this month Romano Prodi's centre-left government enacted a law to give full-time jobs to a third of these freelance educators. The plan is to absorb all of them by 2009. This reflects a wish to improve the consistency and standard of teaching. But it also responds to recent incidents suggesting Italy's teachers have lost control.

Scenes videoed on mobile phones and posted on the internet have shown a 12-year-old girl performing oral sex in class, a teacher with a gun at his head and a handicapped pupil being roughed up by his classmates. In another case, a 16-year-old boy threw himself to his death, apparently because of taunting over his alleged homosexuality. Teachers argue that such incidents are untypical. But few deny that the education system has big problems—and that its shortcomings are one cause of Italy's struggling economy.

Since 2000 successive reports from the OECD's Programme for International Student Assessment have shattered the belief that Italian schools are among Europe's best. The most recent put them near the bottom of the heap. In maths Italy's 15-year-olds were outperformed by their peers in all but three OECD countries. Almost a third were “unable to display the minimum level of mathematics proficiency needed to succeed in their professional and private life”. The share of young adults with essential qualifications was far below the OECD average.

No similarly exhaustive comparison has been done for tertiary education. But that so many young Italians study abroad, and so few young foreigners (2% of all foreign students) do in Italy, points to equally low standards at university level.

The teachers' unions like to stress Italy's relatively low public spending on education as a share of GDP. Scant investment may hold back the universities: spending on core tertiary education is 30% below the OECD average. But it is rising per student, as a low birth rate reduces the number of matriculations. As for schools, spending per primary- and secondary-school pupil is actually above the OECD average. The OECD suggests that its allocation is faulty, with too much cash going to a “large number of comparatively poorly paid teachers”, who work long hours in schools with low teacher-student ratios.

But there is another explanation. As in much of Italy, a logjam blocks young entrants. This explains the morning crowd at the Bar Cristal. It may lie behind the breakdown of discipline in classrooms. In 2001 90% of upper secondary teachers were over 40, compared with an OECD average of two-thirds. A mere 0.1% were under 30 (against 11% in all rich countries).

The incorporation of tens of thousands of youthful casual teachers will be a step in the right direction. But matters are worse in universities, where patronage, cronyism and secure tenure are the rule. A study by *Corriere della Sera* in January showed that a full 30% of top academics and 10% of lecturers were over 65. Only nine of the country's 18,651 senior academics are under 35, compared with 7% in America and fully 16% in Britain. In education, as in far too many walks of Italian life, it is grey power that rules.

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Italy's political parties

Democracy games

Apr 26th 2007 | ROME
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Doubts still hang over plans to form a united centre-left party

FORTY years ago, two young men entered the elite Scuola Normale Superiore in Pisa: Fabio Mussi, son of a Tuscan steelworker, and Massimo D'Alema, son of a Communist lawmaker. The two formed a legendary comradeship, campaigning hard for the Italian Communist Party (PCI). When the PCI was wound up in 1991, both joined its successor, now known as the Left Democrats (DS). But even as Mr D'Alema, now foreign minister, edged closer to the ideas of Bill Clinton and Tony Blair, his friend stayed loyal to his blue-collar origins and became leader of the farthest left DS faction.

On April 20th their friendship snapped. Appalled by the DS's plans to fuse with Democracy and Freedom (Margherita), the next-biggest party in Romano Prodi's centre-left government, Mr Mussi said he would quit. At a congress in Florence, he moved delegates to tears as he bid farewell. Mr D'Alema looked on impassively. The congress should be the DS's last. In the autumn, primaries are planned to choose a leader for the newly united Democratic Party.

If the new party emerges, it will be Italy's biggest, and it may give Mr Prodi the political base he now lacks. But questions remain (besides the obvious risk that the birth may be aborted if the government collapses first). One is whether Mr Prodi, who promises to step down at the end of his present term, will be elected leader. He came fourth in a recent poll of voters; first choice was Walter Veltroni, mayor of Rome.

Another question is where the new party will fit internationally. DS leaders, who dropped the hammer and sickle from their flag less than ten years ago, favour affiliating with the cross-Europe Party of European Socialists. But Francesco Rutelli, who leads Democracy and Freedom, said at his party's congress last weekend that this was “impossible”.

And that points to perhaps the biggest doubt: whether putting all of Italy's centre-leftists into one party can stop them warring. Mr Prodi wants the Democratic Party to be like its American namesake, but it will not be. Its leftmost tip may match the Democrats; but on the right it takes in members of Mr Rutelli's party who look more Republican. One, a member of the Catholic Opus Dei movement and fervently pro-life, proudly admits to wearing the cilice, an instrument of corporal mortification. You can bet Mr Clinton never did that.

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Charlemagne

Don't tell the voters

Apr 26th 2007
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Peter Schrank

Why Tony, Angela and Nicolas are barking up the wrong tree in trying to avoid consulting the citizens

Get article background

IN COMMON with bats, cats and some breeds of dog, European politicians must have powers of hearing superior to those of ordinary humans. How else to explain why, whatever the issue, the leaders of the European Union seem to hear the people calling for more European “action”? Even more impressively, the action they want is invariably the same: for the EU's politicians to go ahead with whatever it is that they are already planning.

So it is now, as the politicians get down to salvaging bits they like from the defunct EU constitution almost two years after it was killed by the resounding no votes of France and the Netherlands. As it happens, EU leaders are divided on the constitution's merits. But leaving these aside, consider instead the strange way in which the politicians are going about its resurrection.

Europe's leaders are united around two incompatible beliefs. The first is that their citizens want them to press ahead with reviving most or all of the constitution. The second is that it is wisest to avoid testing this thesis by asking those citizens directly in new referendums. For this contradiction, blame those exquisitely tuned political ears. EU bosses insist that they hear citizens demanding that the union be made more “effective”; and this, the politicians say, means salvaging bits of the constitution (even if they disagree over which bits). But to avoid putting this to the test, their efforts are bent on avoiding referendums (except for Ireland, whose law may make a referendum unavoidable). As one top Eurocrat puts it, the thought of further referendums inspires “absolute, sheer terror” in Brussels.

This terror may explain why so many EU leaders are rooting for Nicolas Sarkozy to win the French presidential election. Forget ideology: what counts is his plan to ditch the constitution and rush an “institutional treaty” through the French parliament without a referendum. His Socialist opponent, Ségolène Royal, has vowed instead to hold a fresh vote on an expanded constitution. It barely matters that her promise is, as some Socialists are hinting, just an electoral ploy meant to paper over divisions in the French left over Europe. The mere chance that the French might vote again is enough to give Brussels the vapours.

Or consider the position of Britain's Tony Blair. After a long silence on the subject, he announced last week that Europe's citizens do not want the constitution. After the French and Dutch noes, it was “quite

brave” (by which he meant “barking mad”) to imagine that future referendums might end in a yes vote. “We have got to listen to people,” he concluded, as he unveiled his plan B for the constitution. That sounded fine—except that his plan B is to have closed-door talks to shrink the constitution to a modest “amending treaty” designed to avoid a referendum. Mr Blair claims that he can hear voters' voices saying: we dislike the constitution, so please bring it back in a form of your choosing, only this time do not consult us.

There are, it must be conceded, respectable arguments against referendums. But it is the fear of a no vote, not a sudden passion for representative democracy, that moves the constitution's supporters. They are happy to let Spain and Luxembourg preen themselves as the only two countries to have secured yes votes in referendums. Earlier this year these two countries used this achievement as a justification for hosting a special summit of friends of the constitution in Madrid.

Is this all pure hypocrisy? The truth is a bit more complex. Countries such as Spain and Luxembourg still hanker after the whole constitution. But plenty of others always thought it was oversold, and that it was essentially what one bigwig calls a “piddling little treaty”. This camp includes Mr Blair, and probably the European Commission's president, José Manuel Barroso. At least in terms of personal instinct, it may even include the German chancellor, Angela Merkel, who is in charge of the rescue work during Germany's occupation of the EU's rotating presidency. The “piddling” camp can argue that a more modest text is also a more honest text. The treaty was never a genuine constitution; the “European foreign minister” was not really a foreign minister. So why provoke voters by using such terms—and then asking them to vote on the result?

Hearing what you want to hear

But if European leaders now pretend that they are simply correcting the excessive claims they made in the past, they are being too easy on themselves. The truth is that plans to resurrect the constitution display contempt for their voters' intelligence. The extraordinary 12-point questionnaire sent out to EU governments by Ms Merkel in recent days is designed largely to explore possible ways of smuggling a new text past unwitting voters. Suggested tricks include sacrificing high-profile bits that do not matter (an article confirming that the EU anthem is the “Ode to Joy”); and hiding other sensitive bits, for instance the Charter of Fundamental Rights, a sweeping list of social rights, by replacing its full text with “a short cross-reference having the same legal value”. Those with long memories will recall that, when the charter was first proposed in 1999, the politicians argued that making fundamental rights “more visible to the union's citizens” was indispensable to the EU's legitimacy. Now, it seems, it is indispensable for the charter to vanish from sight altogether.

Such sneakiness matters. The starting-point for the constitution, the 2001 Laeken declaration, talked of making the union more transparent and bringing it “closer to its citizens”. Never again would Europe advance by stealth, went the boast. The people of Europe were crying out to be inspired by an ambitious new text, the politicians declared—and they could hear them.

It turns out the politicians were wrong. So now Europe is preparing to advance by stealth yet again. In the name of decency, if nothing else, it would be nice if the union's leaders would admit that, when it comes to discovering what their citizens want, their hearing is no better than anybody else's.

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Local elections

This vehicle is reversing

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From The Economist print edition

David Simonds

Why lacklustre Labour is in for a bad day on May 3rd

LOCAL elections are seldom much fun for whichever party is in power at Westminster. Like America's mid-terms, they offer voters a free shot at an unpopular incumbent and seldom reward popular ones. But even taking the normal dips of the electoral cycle into account, Labour is heading for a thrashing on May 3rd. Everywhere the party looks—from its Celtic strongholds to its hard-won redoubts in the south of England—defeat looms. And then, as if this were not bad enough, Tony Blair, the most successful Westminster election-winner Labour has ever had, will announce some time after the results come in that he is riding off towards the horizon.

The sight of Mr Blair's back might provide temporary relief for party campaigners who are currently being told through slammed doors that the prime minister is the problem. But his departure is unlikely to bring about a rapid transformation in Labour's fortunes. The party is down in the polls; it looks jaded; and it is about to be landed with a leader who has yet to put forward ideas to wake it up.

Voters in England and Scotland will be thinking about the things their councils do for them when they cast their votes (Scotland and Wales have elections to their national assemblies on the same day). But they will also reveal what they think of the three main parties. The answer is likely to be that Labour is unpopular, the Conservatives are more liked than they were but do not inspire devotion and the Liberal Democrats are constant but dull.

Telling the difference between a bad result for Labour and a really bad one is a delicate art. Comparing numbers of seats won with what happened in last year's elections is no good, because the votes then took place in different bits of Britain with different characteristics. London voted last year, and the Tories prospered there. This year there are no council elections in the capital. The best years to look at are 2003 and 2004, when the 10,000 council seats up for election now were last contested. Both were bad years for Labour, so the party does not start from a big base. Further losses, which look likely, are therefore worse than bad.

Another way to assess the results is to examine the share of the vote each party receives. This involves some guessing, as elections are not being held all over the country. Michael Rallings and Colin Thrasher of Plymouth University calculate a “national equivalent vote share” for each set of local elections, which can then be compared year by year. Last year Labour got just 26% of the vote, well behind the Conservatives on 39% and just ahead of the Lib Dems on 25%. If the Lib Dems manage to push Labour into third place

on this measure, more gloom for the government will follow. The Tories, for their part, need to clear the 40% mark to show they have momentum, says John Curtice, an election-watcher at Strathclyde University.

One reason they may is that what looks like a typically prosaic local-government issue is fast becoming a national one. The *Daily Mail*, a newspaper practised at channelling the righteous outrage of its readers at government swindles, has begun a campaign against councils that collect rubbish once a fortnight instead of every week.

The idea is to force people into throwing away less and recycling more, which seems to be a response to infrequent rubbish collection. But the wrath that accompanies rats feeding on bulging bins will fall somewhere. David Miliband, the environment secretary, insists that the offending councils are mostly Conservative-run. But his department sets their recycling targets. It is also charged with implementing a European directive against filling big holes in the ground with refuse, which is how Britain currently disposes of most of its waste. So the mess is heading his way.

Thugs, Greens and fraudsters

In addition to what they reveal about the state of the three main parties, these elections are also interesting because of what will happen at the fringes. Last year votes were cast for 101 registered parties, two-thirds of which contested fewer than five seats. But some of the minnows are growing. The Green Party received 5% of votes last year and should do better this time. The party has just announced that Peter Tatchell, a flamboyant gay-rights campaigner who once attempted to put Robert Mugabe, Zimbabwe's president, under citizen's arrest, will be standing as its candidate at the next parliamentary election. Britain's Greens are still some way behind other western European green parties, but they are gaining ground.

As for the British National Party (BNP), a xenophobic bunch, it too is looking to make progress. This may or may not be aided by an album of “patriotic songs” written by the BNP's leader, Nick Griffin (and put out by the party's label—called, unfortunately, Great White Records). Last year the party doubled its share of council seats and got more than 250,000 votes. It is unlikely to pull off again the sort of coup it managed then in Barking and Dagenham, east London, where it won 11 council seats. That happened largely because the Tories were absent and the Lib Dems fielded only four candidates, leaving the BNP as the main opposition. The other parties have learned not to repeat that mistake.

One lesson that has not been learned from previous elections, though, is how to prevent electoral fraud. The worst outbreak came in Birmingham in 2004, where large numbers of postal votes were collected and filled out by the same few hands. Imaginary voters have also appeared on the electoral roll. Michael Pinto-Duschinsky of Brunel University points to assiduous voters with the same names as Bollywood stars or popular Asian dishes: the problem seems worse in heavily Asian areas. This has led Ann Cryer, a Labour MP for an east London constituency, to worry that, by swapping the private voting booth for the male-dominated dining table, postal votes might be disenfranchising Asian women. Malcolm Dumper, who runs the Association of Electoral Administrators, says that the potential for fraud has been reduced but not eliminated.

These flaws in the system are unlikely to have a measurable effect on the outcome of the election but they will tarnish it. As for the departing Mr Blair, he was asked this week in a party-orchestrated interview placed on YouTube what Labour's greatest achievement with him as leader had been. Winning elections, he replied. This is a habit his party is now losing.

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British Airways and Iberia

Paella in the sky

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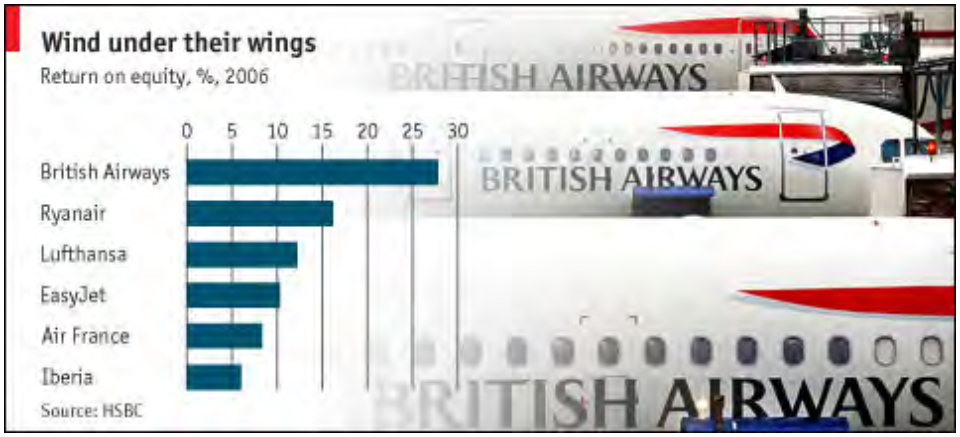
Reuters



British Airways wants to be more profitable, not bigger. How odd

AIRLINE pilots flying into turbulence are trained to gain height above bad weather or buckle up and ride out the trouble, as Willie Walsh, a former aviator who took over as boss of British Airways (BA) 18 months ago, well knows. But with much of the European airline industry in turmoil, calm skies may be hard to find. A promised wave of acquisitions may see big national carriers from Spain (Iberia) and Italy (Alitalia) snapped up along with smaller companies such as Austrian Airlines, Scandinavia's SAS and Britain's BMI.

On April 23rd BA joined the pack of buyers circling Iberia. It is understood to be in talks with two buyout firms that have been running their slide-rules over the Spanish airline, TPG and Apax Partners, about making a joint bid for the carrier with one of them. Other airlines including Lufthansa have also looked at Iberia, but Mr Walsh seems to be kingmaker: BA holds a 10% stake in the carrier and has the right to buy a third of its remaining shares.

There was a time when BA would probably have leapt at the chance to buy Iberia. The two have had a long and profitable association. Since BA bought a stake in 1999, it has had two seats on Iberia's board. The airlines have shared routes and interlocked their schedules so that they can pass passengers back and forth. All that seemed the first dance in a languid courtship. In joining, the two companies could combine BA's dominance of air traffic over the North Atlantic, some 40% of which goes through Britain, with Iberia's strong position in travel between Europe and Latin America.

But the BA of today is a very different company from the self-confident firm that started courting Iberia a decade ago. Then BA made a bigger operating profit than any other airline in the world and, believing that the path to even greater wealth was through growing ever larger, it was adding planes, building capacity and seeking alliances around the globe. But by 2000, its rash expansion had left it in debt to its wingtips and generating barely a tenth of the operating profit it had made four years earlier. Faced a year later with a sudden downturn in the airline industry, BA had to stop buying new jets (apart from the odd one here and there), trim unprofitable routes and cut costs.

Two factors helped BA emerge again in 2006 as Europe's most profitable airline (see chart). The first was an accident of history that gave it the biggest share of the landing slots at Heathrow Airport. This allowed it to focus on the most profitable part of the most profitable long-haul airline route in the world; flying business-class passengers between London and New York. Its main rivals, by contrast, have had to trim margins to compete with low-cost carriers and each other to feed their European hubs.

The second was that frugal times forced the airline to concentrate on being profitable rather than big. Such an idea may be commonplace in most spheres of business but in the airline industry, which has lost a collective $40 billion over the past six years, it is still “pretty radical”, says Chris Avery, an aviation

analyst at JPMorgan, an investment bank. “You don't find many other airlines doing it.”

Having been stung in its previous expansion, BA is loath to consider fresh continental forays. European airlines face not only feckless competitors such as the perennially loss-making Alitalia but also, outside Europe, a Byzantine system of bilateral agreements that govern flights between countries. These stipulate which carriers may fly, as well as where and how often, and hamper efforts to combine European airlines in ways that would allow them to consolidate their operations and cut costs. Analysts at Goldman Sachs, for instance, reckon that European airlines buying Iberia could expect few meaningful cost savings from the combination.

BA, moreover, has plenty to keep it busy. Having stopped buying new jets in order to cut its debt and fill its pension deficit, the airline now has an ageing fleet of long-distance aircraft that will soon need to be replaced. Doing so may cost it more than £1 billion ($2 billion) a year. And BA also needs to prepare for new competitors on its main routes from Heathrow when a new agreement between Europe and America to liberalise air travel a bit comes into effect, giving more airlines access to that transatlantic route.

A Spanish excursion may be the last thing BA wants or needs right now, but it can ill afford to allow Iberia to fall to a group of private-equity buyers teamed up with Lufthansa or Air France-KLM, either of which would likely dismember its own cosy arrangements with Iberia. And the opportunity may simply be too good to pass up. BA's talks with the private-equity firms are based on the understanding that it will contribute nothing beyond its existing 10% stake.

This raises the intriguing possibility that BA may finally solve what Rod Eddington, its former head, calls the recurrent conundrum facing the airline industry: that it “destroys shareholder value at an unprecedented rate”. In joining up with private-equity firms, BA may reap the benefits of a takeover. If it destroys value, someone else will be picking up the tab.

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Topshop in America

Don't slag it off

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The British high street takes on Manhattan fashion

TRADITIONAL historians—those of the kings-and-battles school—will tell you that the last time Britain attacked America's east coast was in 1814, when British troops burned the White House. But cultural historians cite a much more recent (and less destructive) event: the so-called British Invasion of the 1960s, when Britain's musical and sartorial tastes conquered its former colony. The musical charge was led by the Beatles, and fashion was spearheaded by Twiggy, a skinny working-class teenager from North London. She was discovered in a hairdresser's and went on to sell Mary Quant's “London look” all over the world.

Four decades later another rake-thin, streetwise Londoner is trying to pull off the same trick. Unlike Twiggy, Kate Moss is not associated with any particular designer; rather, it is the look she puts together herself—skinny jeans and ballet pumps; men's waistcoats and sawn-off denim shorts—that sets trends. Since her emergence, she has been on the cover of British *Vogue* more often than anyone else and is the only person whom its editor, Alexandra Shulman, allows to be referred to as an icon.

Now Miss Moss is to get a £3m ($6m) cut from a store that makes a great deal of money by selling clothes like the ones she wears. On May 1st Topshop, a high-street fashion chain, will launch a 91-piece collection designed by Miss Moss. A week later the clothes will go on sale at the flagship Manhattan outlet of Barneys, an upmarket department-store chain, and then in its stores across America, as part of an assault on the continent by Topshop's owner, Sir Philip Green, who is one of Britain's most successful retailers.

Sir Philip has already expanded outside Britain, and has established a small beach-head in America. Topshop has 106 outlets abroad; another hundred are in the works and a huge store may open soon in Paris. New York's Opening Ceremony, a small boutique that specialises in foreign designers, has sold Topshop clothes there since 2005. But securing a concession in Barneys is an assault on the citadel. For Barneys represents quintessential New York style: hip yet groomed, pricey and very label-conscious.

Topshop, by contrast, has become successful by selling own-brand clothes that are cheap enough for teenagers to buy but stylish enough that A-listers want to as well. In its Kate Moss collection, for example, a vest top is priced at £12 and a leather jacket at £150. In 2005 Topshop became the first British high-street chain to launch a collection on the catwalk, and last month it was the first to be featured on the cover of British *Vogue*.

According to Simon Doonan, Barneys' creative director, Topshop offers a “bizarre, democratic cool” that has no equivalent in America: the collection it will sell in New York is cheaper than pretty much everything Barneys currently sells. A one-time punk who was born and bred in England, Mr Doonan raves about Miss Moss as the perfect person to bring this modern London look to Manhattan, describing her (in what was intended as a compliment) as a “working-class slag from a crap town”.

There is another reason why Miss Moss is perfect for Sir Philip's plans. What matters about the clothes is not that they are designed by her—in fact, Katy England, a friend and an industry stalwart, was employed to interpret her ideas—but that they are a part of her celebrity brand. Shoppers are being offered the chance to own a little bit of Kate, with jeans featuring embroidered versions of her tattoos, for example. The cult of this particular celebrity will easily cross the Atlantic, says Caroline Evans, a fashion theorist, because Americans invented the genre.

The collection has already attracted some criticism in America: *New York* magazine accused Miss Moss of simply “copying all the crap already hanging in her closet”. This is, as it happens, an excellent business plan. When Miss Moss started wearing a 20-year-old pair of Vivienne Westwood pirate boots that she had found in a vintage store, so many people wanted to copy the look that Miss Westwood starting making them again.

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London transport

Underground; overbudget

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A row about overruns blights London's Tube upgrade

Get article background

TELLING long-suffering commuters on London's Underground that the disruptions and line closures that blight the system are about to get worse is not likely to cheer them up, even if they are necessary to upgrade the system. So when Ken Livingstone, London's mayor, made exactly that announcement on April 24th he was keen to point to improvements that had already been made. He reminded the assembled journalists of the extra carriage now attached to each train on the Jubilee line, added without a hitch over Christmas. A fifth of the network's stations have been smartened up, he said, and most of the improvements to the Waterloo & City line (which, admittedly, serves only two stations) are complete.

Four years into the controversial public-private partnership (PPP) contracts to modernise the Tube, any good news is a welcome relief. In recent months the engineering works have been overshadowed by a row about who should pay for £750m of projected budget overruns incurred by Metronet, the firm responsible for nine of the Tube's 12 lines.

The row follows several years of criticism of the company's work. The last two annual reports from Transport for London (TfL) on the state of the Tube contracts have singled out Metronet for special criticism, accusing it of falling behind on its programme of station improvements, allowing late-night engineering work to spill over into the morning rush hour and making elementary mistakes, such as failing to heat-stress rails as summer weather approached. Such incidents, says the latest report, “completely undermine...our confidence in Metronet's management”.

Strong stuff. Metronet protests that it is improving, catching up on station upgrades and beginning to put its contracts out to competitive tender. (Before, they were handed out among the firm's five shareholders—three engineering firms, WS Atkins, Balfour Beatty and Bombardier, and two utility companies, EDF Energy and Thames Water.) But TfL's worries were echoed by Chris Bolt, the PPP Arbiter (effectively, the contract's regulator). His first report on Metronet's performance, published last November, uncovered likely cost overruns of £750m over the first seven and a half years of the contract.

Neither TfL nor Metronet is willing to pay up. Under the fiendishly complicated PPP contracts, TfL (and, therefore, taxpayers) must pay any unexpected costs that arise, provided that the maintenance firms are acting in an “economic and efficient” manner. If the firms have been wasting money, then responsibility falls on them.

Tube bosses want a further ruling from Mr Bolt on exactly who pays what. Metronet (which must request any such review) has argued instead for a negotiated settlement. But with TfL steadfastly refusing to contemplate such talks—“we're not going to hand over piles of public cash,” says a spokesman—it has few options. An eventual return to the arbiter seems likely, probably in early summer, although Metronet says it might pursue legal action as well.

A review is a worrying prospect for Metronet's shareholders, which have, between them, invested £350m in the firm—less than half as much as the overruns they may have to pay for. Mr Bolt has already stated that in general Metronet has been acting neither economically nor efficiently in much of its work. On April 18th WS Atkins warned that Metronet's problems would lead the engineering firm to include an exceptional loss of £32m in this year's results. On the same day Balfour Beatty noted that the consortium's finances were “under increasing pressure”.

The prospect of a big payout has kindled speculation about what might happen should the shareholders decide to walk away. Tim O'Toole, the Tube's boss, says that London Underground would step in until the contracts could be re-let. This could take up to two years, according to Peter Hendy, TfL's boss. Mr O'Toole argues that the reputational hit from abandoning Britain's biggest PPP project offers firms a powerful

incentive to stay the course. “That's true,” says Stephen Glaister of London's Imperial College. “But don't forget that these guys have obligations to their own shareholders in turn.”

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Financial stability

The better you do, the greater the risk

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The Bank of England does some worrying

THE sea through which the *Patna* is steaming is serene and the starry sky is clear. Then comes “a faint noise as of thunder” that makes the ship quiver “as if the thunder had growled deep down in the water”. Such a tremor occurs from time to time in today's unnaturally tranquil financial markets. Yet, like the *Patna* in Joseph Conrad's “Lord Jim”, they sail on, apparently unscathed.

Central bankers, however, like to peer below the waterline to see if everything is as seaworthy as it appears to be. In its *Financial Stability Report* on April 26th, the Bank of England says that the British financial system has become more vulnerable over the past nine months. Its big concern—one shared with other central banks—is that unusually stable economic conditions may be luring individuals and companies into risky ventures that could cause wider financial problems if they go belly-up.

There are already signs of distress in the household sector. Most notably, the number of personal insolvencies surged by almost 60% in 2006. The rise, however, has been exaggerated by the fact that individuals are now more willing and able to renege on their debts. Furthermore, the problems have arisen mainly with unsecured borrowing rather than with loans secured against homes. Banks' write-off rates on credit cards have increased sharply but those on mortgages remain very low.

Although the bank thinks that households have become a bit more vulnerable, it seems more bothered about the corporate sector. After years of caution, British companies have changed tack. They are piling on debt, encouraged by unusually low corporate-bond rates and spurred by the threat of private-equity predators.

The report expresses a particular concern about commercial property in Britain, which it describes as “one area that appears potentially vulnerable”. At first sight, the market looks to be in rude health: prices rose by 11% in the year to February. But rental yields are now below the cost of finance. Despite this, banks have been easing their lending conditions. A setback seems highly likely at some stage in this notoriously cyclical business. If it happens, it could inflict a lot of collateral financial damage: commercial-property firms account for 37% of big British banks' stock of lending to British companies.

The central bank is keen to emphasise the resilience of the financial system, as well as any vulnerabilities. British banks remain very profitable and well capitalised. However, risk-taking has increased because of continuing expectations of macroeconomic stability together with intense competition for new business. Markets are being used to an ever-greater extent to price and manage that risk. The combined effect has “amplified risks” to the financial system as a whole since the bank's last check-up in July 2006.

One of the bank's main objectives is to ensure financial stability, so it is bound to fret about the dangers. Even so, it sounds disconcertingly full of angst. What's more, it will soon be making life harder for borrowers by raising interest rates.

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Scottish elections

Oil slick

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From The Economist print edition

Businessmen join the battle over Scottish independence

SINCE companies do not vote, businesses are often overlooked at election time. This is especially true in Scotland, where voters are traditionally more left-wing than in the rest of Britain. But in the campaign for the Scottish Parliament elections on May 3rd, business is being courted as though it had the critical casting ballot.

Small firms are the big winners. All the main parties are promising to cut local business taxes. The Scottish National Party (SNP), which favours eventual independence, is the most generous. It promises to spend £150m a year to exempt 120,000 of the smallest enterprises from local taxes. If Scotland becomes independent, the SNP says, it would slash corporation tax from the current 30% rate to 20%.

The context of this largesse became clear on April 23rd, when newspapers published SNP advertisements listing 100 business supporters. They included some heavyweight names, among them Sir George Mathewson, former chairman of the Royal Bank of Scotland, Brian Souter, chairman of Stagecoach, a big bus and rail company, and a newer recruit to the cause, Sir Tom Farmer, founder of Kwik-Fit, a well-known car-repair firm.

The Labour Party hit back on April 25th with its own list of 150 heavier-weight businessmen opposed to breaking up the United Kingdom. Prominent among them were Sir Peter Burt, a former chairman of the Bank of Scotland, and Peter Balfour, once head of Scottish & Newcastle Breweries. At a business breakfast in Edinburgh that day, Gordon Brown, Britain's chancellor and MP for a Scottish constituency, thundered that independence would mean “conflict and turmoil for Scottish businesses from day one”.

Most businessmen in Scotland do want to stay in the United Kingdom, it seems. A Scottish Chambers of Commerce survey in March found that 30% of its members thought independence would bring advantages but 55% preferred things as they were. Alan Mitchell, the assistant director of CBI Scotland, says most of that business group's members are not yet persuaded of the merits of independence.

Behind the roll-calling lies a long-rumbling debate about whether an independent Scotland could go it alone economically. Its performance to date has not been brilliant: the Scottish economy grew by only 17% between 1997 and 2005, whereas England's expanded by 25%. Yet government spending in Scotland was higher per person than in Britain as a whole. Would an independent Scotland be broke?

Oil on troubled waters

The figures are murky. Labour uses Scottish Executive statistics to show that in 2004-2005 the government spent £11.2 billion more north of the border than it raised in taxes there. Labour claims that this deficit—equal to 12% of Scottish output excluding oil—proves that an independent Scotland would have to cut spending or raise taxes sharply.

Propaganda, retorts the SNP. Crucially, Labour's figures do not include North Sea oil revenues, which have been booming along with higher oil prices. In 2006-2007, the SNP claims, if oil revenues are counted in the equation and loads of other adjustments made, Scotland produced a surplus of £600m.

Both sets of figures include debatable estimates. Most economists think the executive's figures are closer to the mark on Scotland's basic fiscal situation. According to Iain McLean, a professor of politics at Oxford University, “Even if you include oil, Scotland has a structural deficit.”

But the size of that deficit is fiercely disputed. It depends mostly on what share of Britain's oil and gas revenues Scotland can claim. Working this out is anything but simple, for official statistics do not break

out the taxes geographically.

Where exactly the line is drawn between Scotland's part of the North Sea and England's matters, and so do relative costs of production. Sterling's exchange rate against the dollar affects the split, and divergences in the prices of oil and gas play a role as well. Estimates of Scotland's true share since 1979 range from 60% to more than 90%, depending on the year and the person estimating. The Scottish Executive reckons that even if all North Sea revenues were attributed to Scotland in 2004-05, it still had a fiscal deficit equal to almost 5% of output. That should be different now. England produces mostly gas and Scotland's output is mainly oil, so the low gas and high oil prices that currently prevail would give Scotland the lion's share by far.

The SNP has some reason to argue that Scotland is not quite the subsidy junkie that many call it. But oil prices are notoriously volatile, and anyway North Sea production is now well past its peak. The birth of an independent Scotland, it is clear, would still be painful.

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Bagehot

Will Brown have Balls?

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Steve O'Brien

Forget the deputy leadership election. Where Ed Balls goes is much more important

Gordon Brown

NOW that almost all hopes of a serious contest for the Labour leadership have been squashed, there will be a concerted attempt to inject some dash and vigour into the race to become Gordon Brown's deputy. It will be uphill work.

As things stand, the joint favourites for this relatively meaningless job are Alan Johnson, the education secretary, and Hilary Benn, the secretary for international development. Both are attractive and quite talented politicians who, in their mid-50s, harbour leadership ambitions of their own if Mr Brown's reign proves short. They are loyal centrists, neither Brownites nor ultra-Blairites, but the good and faithful servants of a weary and slightly shopsoiled government. They will say how they yearn to listen to those parts of the party that feel unloved and ignored; they will admit that the government has not been perfect; but they will still defend it (and Mr Brown) to the hilt. As a contest, it will be deadly dull and its outcome is likely to matter little.

A much more intriguing question is the fate of the man who, for much of the past decade, has been known as the “deputy chancellor”. He may well turn out to be the single most important figure in a government led by Mr Brown, apart from the prime minister himself.

That person is the 40-year-old Ed Balls, who occupies at present the relatively junior, though influential, post as economic secretary to the Treasury, with special responsibility for the City. Since he became an MP two years ago (his Yorkshire seat borders that of his wife and fellow minister, Yvette Cooper), Mr Balls has worked hard to develop his public profile. That has not been difficult. Because the chancellor is unwilling to appear on political panel shows and rations his interviews, Mr Balls has been much in demand. The reasonable assumption among broadcast producers is that if you want to know what Mr Brown is thinking, there is no better proxy than Mr Balls. Indeed, with his floppy fringe and his pugnacious jaw jutting from a slightly jowelly face, Mr Balls has even begun to look like the continuation of Mr Brown by other means.

But there is more to Mr Balls than his role as a willing interpreter of what is going on inside Mr Brown's capacious brain. Lured from the *Financial Times* by Mr Brown in 1994, when he was shadow chancellor, young Mr Balls rapidly established himself as an adviser who would debate with Mr Brown on equal terms.

He had a big impact on his master's thinking—perhaps because he had acquired argumentative stamina while studying economics at Harvard under the combative Larry Summers.

A critical part of Mr Balls's strategy—and one that chimed perfectly with Mr Brown's own instincts—was that a left-of-centre government must establish credibility with the international financial markets before embarking on redistribution. Mr Balls also believed that supporting free trade and globalisation was compatible with pursuing social justice at home.

After Labour's landslide victory in 1997, Mr Brown and Mr Balls entered the Treasury. Shocked officials rapidly got the message that, apart from Mr Brown himself, nobody within the building would have more power or influence than Mr Balls, who later became chief economic adviser.

Indeed, Mr Balls was instrumental in several of Mr Brown's most decisive actions. One such was the decision to make the Bank of England independent in setting interest rates; another, the long struggle to prevent the pound from being sucked into the European single currency. Mr Balls, it is said, drew up in the back of a New York taxi with Mr Brown the famous five tests that were meant to determine when sterling should join the euro. He then took control of the process which reached the inevitable conclusion in 2004 that the benefits of joining were so far neither clear nor unambiguous.

In short, Mr Balls could well be seen as joint architect of the macroeconomic stability of which the government has been able to boast even when other things were going wrong. Before he left the Treasury to become a humble MP, Mr Balls used to be described, with some justice, as the most powerful unelected official in Britain.

The question for both Mr Brown and Mr Balls is how they should handle the next stage of their close relationship. Mr Brown will certainly promote Mr Balls to the cabinet when he takes over as prime minister. But should he make Mr Balls his chancellor?

Just do it

The arguments are finely balanced. On the negative side, Mr Balls, as he is the first to admit, is still an inexperienced politician. He is also an abrasive character who, as Mr Brown's man of business, has relished scourging Blairites. But they must now be appeased and included.

Like his boss, Mr Balls is not a great communicator. He has more or less successfully overcome a slight stammer. But for someone of such high intelligence, he can sound oddly inarticulate, like a badly programmed speak-your-weight machine. And if Mr Brown sent his friend next door to Number 11, it would undoubtedly excite charges of cronyism.

On the other hand, no one in government can match Mr Balls's technical mastery, and Mr Brown would have greater confidence delegating Treasury matters to him than to anyone else. That confidence is essential if Mr Brown is to acquire the prime ministerial skills he needs. As for Mr Balls's inexperience, he is older than George Osborne, the Tory shadow chancellor, and knows a good deal more economics. And if he were not made chancellor, he might come to wield excessive power—less transparently, behind the throne—in some other job. If Mr Brown wants Mr Balls as his chancellor, he should not let fear of the inevitable criticism that would follow stop him.

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India and America

A nuclear test of wills

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The deal in difficulty

DID they celebrate too soon? It was billed as an epoch-making deal between the world's two biggest democracies that would turn decades of estrangement into partnership. Last December, when America's Congress gave its initial blessing to a controversial nuclear deal that President George Bush had struck earlier with India's prime minister, Manmohan Singh, supporters in both capitals were euphoric. No longer. India's top diplomat is due in Washington on April 30th to try to rescue the plan. So why has the fizz suddenly gone out of it all?

India has been barred for years from even civilian nuclear trade with America—and most other countries—for having armed itself with nuclear weapons and stayed outside the Nuclear Non-Proliferation Treaty (NPT). Now it has agreed to separate its civilian nuclear industry from its bomb-building and put the energy-producing bits under safeguards, and America has agreed to beckon it in from the cold. But Congress's Hyde Act sets out other steps needed for the deal to get a final nod: a bilateral "123 agreement" (named after the clause in America's Atomic Energy Act that governs nuclear trade with other countries), and the relevant safeguards agreement with the International Atomic Energy Agency (IAEA), the UN's nuclear guardian. In expectation of both, America has been lobbying for an India-sized waiver of the rules of the informal but influential Nuclear Suppliers Group that bar nuclear dealings with countries that don't have all nuclear facilities under full safeguards. And all this must be done before Congress approves the deal.

America had hoped India would move swiftly to take advantage of this unprecedented nuclear opening (it upsets other governments who fear it will undermine the already shaky anti-proliferation regime). But India has dragged its feet in talks with the IAEA. And the 123 negotiations have stumbled; unless they can be concluded by next month, worries Nicholas Burns, America's point-man for the deal, the package may not be ready before Congress gets embroiled in America's 2008 presidential election.

For India, however, the devil in the 123 agreement is not just in the technical detail. Above all, Mr Singh is under strong pressure from his nuclear establishment, and from the opposition Bharatiya Janata Party, which supervised India's most recent bomb tests in 1998, not to agree to anything that would curtail India's right to test again, should it so choose. But the Hyde Act is clear: if India tests, the deal is off.

India would still be free to test, of course, and damn the consequences. But it is these—from increased pressure not to test in the first place to accusations that India had trashed the deal—that it wants to avoid. And the Hyde Act rules out ruses such as getting others to supply India with nuclear fuel if America backs out, or helping it build up large enough fuel stocks to test with at least nuclear impunity. Crafting words that satisfy India's wish to keep all its nuclear options open, and yet could squeak past Congress, is hard.

For although India has not signed the NPT, America has; it is not supposed to assist others' weapons building in any way. To India's frustration, the Hyde Act therefore also rules out selling India (or bending NSG rules far enough to allow others to sell) equipment and technology for three processes used in making nuclear fuel that are also crucial for producing the fissile material for bombs: uranium enrichment, plutonium reprocessing of spent fuel and the production of heavy water (used as a moderator in reactors fuelled by natural uranium that can be ideal for producing bomb-useable plutonium). Nor is India to be allowed to reprocess American-origin spent nuclear fuel to extract its plutonium.

Might India test again? How many more bombs does it want? If the deal goes through, the foreign fuel it can import will anyway take the pressure off its own tight uranium stocks, enabling more of these to be used in its military programme. It has also exempted its plutonium-producing fast-breeder reactor from safeguards.

In the discussions that followed its 1998 tests, India indicated to America that its need for plutonium was not open-ended, and that it would not seek nuclear parity with China. Since then, says Robert Einhorn, who took part in those talks and is now at the Washington-based Centre for Strategic and International Studies, India seems to have changed its strategic goals; its insistence on the option for large-scale plutonium production suggests a revised view of where it thinks it should be in the global pecking order, he says.

Privately, some Bush administration officials would not be unhappy if India's growing nuclear arsenal gave China more pause. But as the momentum behind the deal slows, the going gets tougher.

India's Communists, Mr Singh's sometime-allies in Parliament, resent America's leaning on India to join in pressuring Iran over its illicit nuclear activities. Yet India's developing military co-operation with Iran is also unsettling some in America's Congress: a bipartisan group of eight senators has just sent Mr Singh a letter calling on him to suspend such ties. Henry Sokolski of the Non-Proliferation Policy Education Centre also points to the danger of sharing sensitive space-launch technologies with India, given the risk that these could someday end up aiding Iran's missile programmes

It would be premature to write off the nuclear deal. Unlike Congress, India's Parliament does not need to give formal assent. Mr Bush and Mr Singh have much invested in it. But it is not a done deal yet. And India could still walk away from it.

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Marine energy

Tapping the power of the sea

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An effort to harvest electricity from tides and waves is gathering pace

IF ONLY a few little problems, to do with politics, government regulation and technology, could be solved, then the remedy for the world's fossil-fuel dependence would be wonderfully simple: just look to the ocean. A fraction of the energy locked up in the oceans could, in theory, meet the world's entire electricity needs.

Science Photo Library

Tide-race on the Rance: the pride of France

In practice, of course, things are nothing like that simple. Extracting hydropower from dammed-up rivers is comparatively easy compared with harvesting energy from offshore tides and waves, and then putting it into the grid via underwater cables. Only 14 countries now operate tidal or wave-power stations, and most are tiny, experimental and expensive.

But with governments all over the world thinking about climate change, and under pressure from voters to show their green colours, the tide may be turning, politically at least. Australian scientists fantasise about the day when they could get enough power from the surf-friendly waves along the southern coast to meet the whole country's electricity needs. Politicians in Oregon dream of generating all the state's power from the Pacific. Britain's Carbon Trust, a government-funded company that proffers help with cutting greenhouse emissions, says 20% of national energy could come from the sea.

Compared with those dreams, anything that is really happening, or likely to happen in the near future, sounds puny. Technology piloted at the European Marine Energy Centre, a testing ground in the storm-tossed Orkney islands off northern Scotland, will soon be used to supply the Portuguese national grid. But the device that will be set up by Ocean Power Delivery, a Scottish company, off Portugal's coast is not (or not yet) going to change the world; initially it will provide 2.25MW of electricity, enough for around 1,500 homes, and later ten times as much. A “wave farm” off Cornwall will soon supply 7,500 English homes.

Meanwhile, America's first tidal project became operational last December, when two underwater turbines were installed in New York's East River. It took Verdant Power, a Canadian-American company, five years to get the necessary permits—in part because this tiny project faces as big a regulatory burden from federal authorities as a giant conventional power station.

But the climate may be shifting. A legislator from Washington state this week urged Congress to spend at least $50m on ocean-power research: not world-beating, but potentially the first federal funding in decades for sea-based renewables.

With its fossil-fuel culture, the United States is a laggard in marine energy. Tidal power projects have been in place for more than 40 years in China, Russia and also in France, where a tidal unit on the Rance river claims to produce energy more cheaply than nuclear power stations.

Canada established a tidal-research station in its eastern Bay of Fundy, said to have some of the best tidal resources in the world, in 1984. This uses an old technology, called barrage (blocking the tide), but the Nova Scotia government hopes to have new machines in place by 2009.

Many other governments are interested in marine power but want to see whether other states shoulder the financial risks, says Michael Hay, of Britain's Wind Energy Association: he mentions Ireland, Spain, South Africa, Australia, New Zealand, China and South Korea.

Hunter Lovins, an energy economics pundit, says the financial obstacles to widespread marine power may trump the political attractions. “Absent a global recognition of the extreme seriousness of climate change, tidal's not really a player.” she says. But is there such an absence?

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A world of connections

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Belle Mellor

New wireless technologies will link not just people but lots of objects too. That will be tremendously useful, says Kenneth Cukier (interviewed here); but getting there will be tricky

THE radio is 110 years old this year and the microprocessor just under 50. As these two technologies move ever closer together, with wireless capabilities now being put on computer chips, something exciting is happening. All the benefits of the computing world—innovation, short development cycles and low cost—are being extended to wireless communications. As a result, a myriad of hitherto separate objects are becoming connected to networks, from televisions and cars to industrial machinery and farmland. Tiny devices are even being placed into the human body to perform useful tasks. The new technology enables control to be exercised from a distance and lets different devices interconnect to do something new.

So far the mobile phone has been getting all the attention. Around 2.8 billion are already in use, with a further 1.6m being added every day. The phones themselves are improving at a cracking pace. Yet this boom is also spilling over into other areas of wireless communications, used for linking machines, sensors and objects. “Everybody talks about the emerging markets being the big opportunity for the cellular industry in the next few years, but in the longer run there are going to be a lot more devices talking to each other,” says Paul Jacobs, the boss of Qualcomm, which makes mobile-phone chips.

This year around 10 billion microprocessors will be sold, embedded in anything from computers to coffee-makers. The vast majority of them will be able to “think” but not “talk”: they will perform specific tasks but cannot communicate. But this is now starting to change. The cost, size and power requirements of wireless functions are falling rapidly, so some unlikely candidates are now being connected to networks. For example, bridges and buildings are being monitored for structural integrity by small sensors. Farmland is being watched and irrigation systems are being switched on and off remotely.

In years to come, wireless communications will increasingly become part of the fabric of everyday life. David Clark, a computer scientist at the Massachusetts Institute of Technology who helped develop the internet, believes that in 15 or 20 years' time the network will need to accommodate a trillion devices, most of them wireless. To illustrate what that world might be like, Robert Poor, the co-founder of two wireless companies, Adozu and Ember, uses a modest example: light fixtures in buildings. If every one of them contained a small wireless node, people would not only be able to control the lighting more effectively but put them to many other uses too. If the nodes were programmed to serve as online smoke detectors, they could signal a fire as well as show its location. They could also act as a security system or provide internet connectivity to other things in the building.

Such applications are already being developed. For instance, Philips, an electronics firm, plans to introduce wirelessly controlled lighting systems for commercial buildings in around five years' time. And its researchers are working on making networked light fittings capable of monitoring the objects

throughout a building, tracking equipment in hospitals or preventing theft in offices.

These ideas have been floating around for years, variously known as “ubiquitous computing”, “embedded networking” and “the pervasive internet”. The phenomenon “could well dwarf previous milestones in the information revolution”, according to a 2001 report entitled “Embedded, Everywhere” by America's National Research Council, part of the respected National Academy of Sciences. A report by a United Nations agency in 2005 called it “The Internet of Things”.

But now it is actually starting to happen. Even governments have taken notice. Japan and South Korea have incorporated wireless technology into national policies, their sprawling IT conglomerates marching in lockstep with the political leaders. The European Union and America (where defence money paid for many of the advances) have issued thick reports.

For all the excitement, it will be a while before machine-to-machine (M2M) communications and sensor networks become ubiquitous. Although the technology exists, different approaches do not as yet work well together. Unlike computer software, which can be deployed with a few mouse-clicks, each system still needs to be tailor-made. And the melding of communications and computing brings together two industries and engineering cultures that are generally at odds, slowing progress. Moreover, the business models to justify the time and cost of adding wireless services are embryonic.

Still, the general direction is clear. In the years ahead new wireless technologies will appear in a plethora of devices, much as computer chips did in the second half of the 20th century. This survey will explain how this will come about, and why it will not be easy.

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Marconi's brainwave

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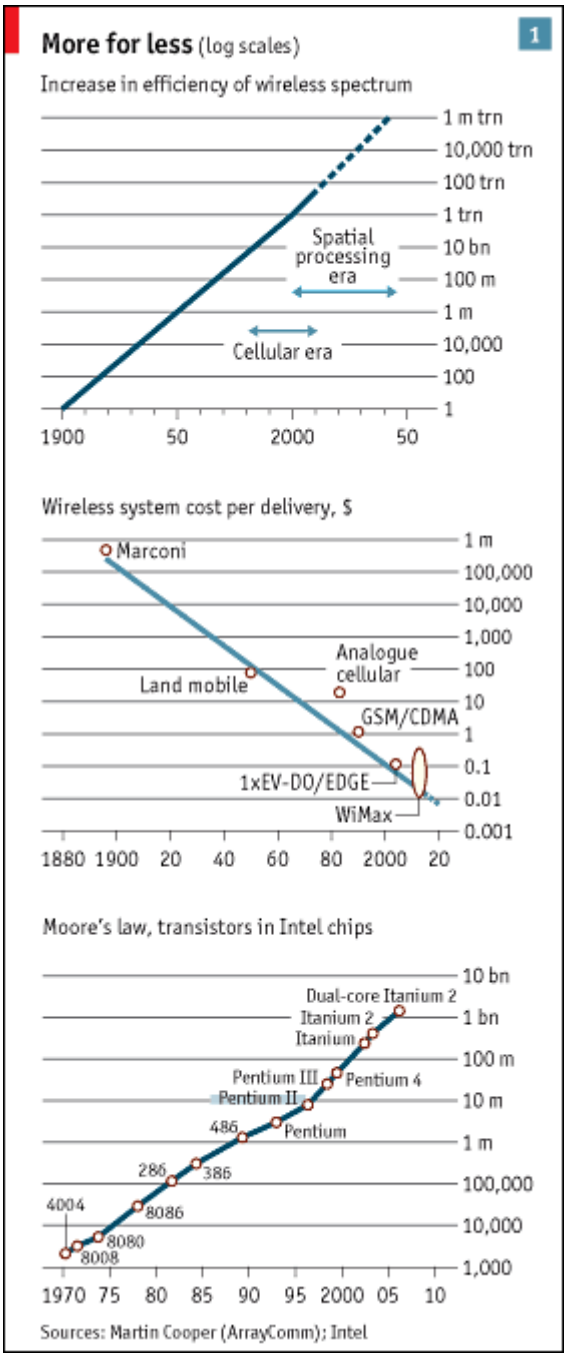
Wireless technology is advancing by leaps and bounds—and there is much more to come

WHEN Guglielmo Marconi was granted patents on his "wireless telegraph" in 1897, the future of his invention looked modest. At the time radio signals could travel only a few kilometres, and only one receiver and transmitter could operate in any one area. Since 1900 "spectrum efficiency"—the amount of information that can travel over the same portion of radio waves—has improved perhaps a trillion times, estimates Martin Cooper of ArrayComm, who is hailed as the father of the mobile phone (see chart 1).



The invention of the transistor in 1947 and the microprocessor (which integrated transistors and other things onto a single chip) in 1958 changed the way radios function. The microprocessor helped to get rid of crystals, copper coils and vacuum tubes, putting the ingredients of a radio almost entirely on silicon. This costs less to make, takes up less space, consumes less power, makes the radio perform better and

allows it to work more smoothly with the other electronics inside the device.

Innovation happens quickly. The processing power of chips doubles about every two years, according to Moore's law, named after Gordon Moore, a co-founder of Intel, the world's biggest chip company. As the billions of transistors on the chips get smaller, there is more room to add extra functions. Such chips do not just go faster, they also do more, and the cost of integrating new functions is relatively low.

Many of the functions of such chips are controlled by software, which means they can be continually upgraded at little cost. Moreover, chip technology has not only improved the performance and cost of the radio itself but other parts of the system too, from “smart” antennae to advanced power management for longer battery life. As a result, the cost of wireless communications has plummeted.

The mobile-phone industry has both benefited from these developments and spurred them on. The industry as a whole—including handset-makers, software developers, network operators and so on—is reckoned to have revenues of around $1 trillion a year, according to Informa, a market-research firm. Traffic volume is soaring. By 2011 perhaps 4 billion people will be carrying a mobile phone.

Connecting things rather than people is far less advanced. Sales of wireless modules for devices, sensors and machines this year are forecast to reach a mere 33m, though they are expected to grow rapidly, to around 400m in 2011, according to Harbor Research. By then revenues for hardware and services, now $48 billion, may have grown to $200 billion—still a far cry from the mobile-phone industry.

Yet wireless communications in these areas are advancing rapidly at a time when the mobile-phone industry is approaching saturation point in rich countries and the average revenue per user is sagging. And they hold a lot of promise: there are far more things than people that can be wirelessly linked, from doors and windows to machines and trees.

Just as a milestone was reached in 1998 when the volume of global internet traffic through America overtook voice traffic, so a turning point will come when devices connected to the network overtake people, whether in number, bandwidth or calls. This may happen sooner than expected.

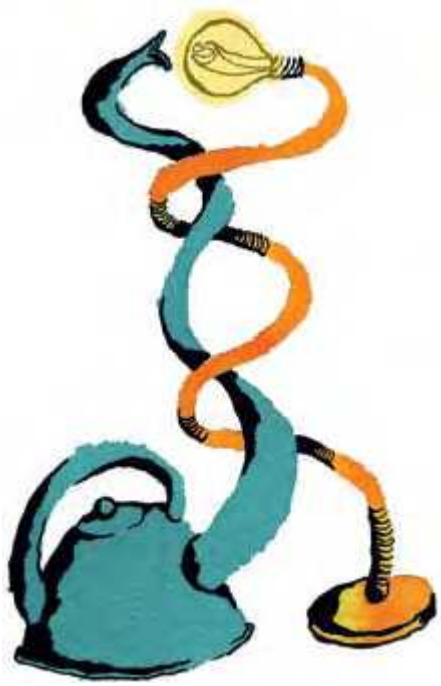
Stratton Scalvos, the boss of VeriSign, which operates part of the internet's address system, notes that around 12% of address traffic involves computers linking to other computers, without a person at either end. John Roese, the chief technology officer of Nortel, a telecoms-equipment vendor, expects the amount of machine-to-machine communication to pull ahead of human calls and web clicks some time between 2009 and 2011 as cameras, cars, utility meters, home security systems and the like continuously send data across the network. Vivek Ranadivé, the boss of Tibco, a software developer for corporate IT systems, says the number of computer transactions automatically started by other computers is already higher than that initiated by people.

Oddly enough, it is the success of mobile phones that has fuelled the rise of wireless communications among objects rather than people, promoting innovation and bringing down prices. Take Texas Instruments, which leads the market for chips in mobile phones on the GSM standard. In 2003 it began work on a single low-cost radio chip that included support for a digital music player, FM stereo radio, camera and colour display with a longer battery life. A prototype was built in 2004 and bulk production began in 2006. In the fourth quarter of last year alone the firm shipped 10m of these chips. The chips have dropped from $50 apiece to around $5, and a phone that would have cost $250 five years ago is now $25. But rather than become even cheaper, in future the chips will offer more features, says Greg Delagi, who heads TI's wireless unit.

Belle Mellor

Engineers have been able to apply such innovations and economies of scale to other wireless technologies. As a result, some radio chips—for example, those used for the Global Positioning System, say, or for Bluetooth wireless communications—now cost as little as $1 and are the size of a matchhead. Chips with a newer technology called Zigbee, used for short-range sensors, which currently cost around $4 and are the size of a fingernail, are expected to shrink down to a quarter of the price and size in five years. A far simpler kind of chip called a radio-frequency identification (RFID) tag, which sends a tiny quantity of data over a short range when activated, can already be manufactured for 4 cents apiece. Hitachi has a prototype chip that fits into the groove of a thumb-print. Last year 1 billion RFID chips were sold; this year the number may rise to 1.7 billion, according to IDTechEx, a consultancy.

All this means that many formerly self-contained things have become capable of communicating. For example, most big logistics companies in America and Europe now track their fleets with a combination of satellites and mobile-phone networks. Small wireless sensors monitoring equipment in large factories can provide early warning of impending breakdown. They can run on energy “harvested” from the heat or vibrations of the machinery.



Let device talk unto device

Apple's iPod and Nike's running shoes can interconnect so that the music player can select songs that match the jogger's pace. Large organisations such as retailers, hospitals and the armed forces are using RFID tags for managing stock levels. More robust versions of the technology are deployed in “contactless” bank cards, passports and public-transport passes.

Yet this is only the start. And although many of the initial technologies were championed by America's defence industry—which gave life to the internet in the 1970s—the most interesting applications are emerging in the private sector (again, as with the internet). Regulators are helping things along. Both Europe and America are considering proposals for fitting all cars with equipment that will automatically call the emergency services in the event of an accident. Some countries now require utility companies to read meters more regularly to promote energy conservation, giving a boost to wireless connections. Makers of medical devices are offering more home-monitoring products. And mobile operators are spending huge sums to upgrade their networks for high-speed access—and are looking for new sources of traffic for them.

One of the most important consequences of these new wireless technologies will be to increase visibility and accountability, says Jiro Kokuryo of Keio University in Japan. Economists today treat many items as indirect costs because there is no way to attribute the use of a resource to a particular individual. Wireless communications can change this, he says, by making it possible to base things like road tolls and car-insurance premiums on people's actual driving patterns. But that also raises privacy concerns on a far larger scale than hitherto.

Will the fridge really want to talk to the kettle? Probably not. But that is a detail. Wireless technology is akin to the electrical grid, which was originally intended for a particular use, the light bulb, but whose “killer application” turned out to be the power socket that allowed a multitude of new and unforeseen devices to draw energy from it. In time, the new wireless technologies will likewise reshape society in unpredictable ways.

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On the radio

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Wireless takes many forms

RADIOS work by using the electromagnetic spectrum to send information. When an electrical current travels through a wire it creates an electromagnetic field, sending out waves in all directions—rather like light, which is also a part of the spectrum but at much higher frequencies. An antenna and extra power allow the signal to be transmitted over long distances. The frequency of the wave can be changed so that signals do not interfere with one another, allowing more of the spectrum to be used.

Radio waves exist in nature, from sound and light to cosmic rays in space. The man-made sort can do things like transmit music or heat food in a microwave. At the low end of the spectrum are the frequencies used for things like television and mobile phones. The lower the frequency of the wave, the farther it can travel or penetrate physical objects. Thus FM radio at relatively high frequencies is used for local stations but does not travel far, whereas short-wave radio, at low frequencies, can stretch around the world.

Speaking in tongues 2

Main two-way wireless technologies*

	Data rate per second	Range	Cost†
Mobile WiMax	15Mb	5km	$8 in 2008
3G cellular (HSDPA/LTE)	14Mb	10km	$6
2G cellular (GSM/CDMA)	400k	35km	$5
Wi-Fi	54Mb	50-100m	$4
Bluetooth	700k	10m	$1
Zigbee	250k	30m	$4
UWB	~400Mb	5-10m	$5
RFID	1-200k	0.01-10m	4 cents

*Typical performance; actual figures vary
†Approx. device-chip cost at high volume

Sources: William Webb; Cambridge Consultants; OECD; Pyramid Research; Nokia; TI; CSR; Ember; Hitachi

Wireless technology can be split into five main sorts, roughly ranked by the distance that the signals travel. The top travellers are satellite communications such as the Global Positioning System (GPS). This is a constellation of 24 satellites, managed by the American armed forces, that constantly send out signals to devices on the ground. But the signals travel only one way, from satellite to device.

A little closer to home, and with signals going both ways, are “wide-area” mobile-phone technologies such as GSM or CDMA. Advanced “third-generation” (3G) versions include HSDPA and LTE, developed by the mobile-phone industry. A promising rival is WiMax, based on the internet standard and supported by the computer industry. A third category takes in shorter-range signals used to connect things in a building or room. Examples include the popular Wi-Fi standard to access the internet in hotels or airports, and Zigbee to link sensors. A new advance is ultra-wideband (UWB) technology, which uses very high frequencies at very short range to transmit huge amounts of data, as in sending video from an iPod-like device to a TV screen.

A fourth type connects things in a “personal-area network” or PAN. An example is Bluetooth, which is used to link mobile phones with earpieces. The last is near-field communications (NFC), where contact needs to be close, as in passes for buildings and public transport. A variant is radio-frequency identification (RFID) tags, used by retailers and others. When passed in front of a reader, the tags send back data stored on them. These radio systems are as different from each other as light is from sound, so satellites cannot track RFID tags, for instance. This means that some privacy worries are misplaced.

Radio has been cramming ever more information into the transmission, using techniques such as spreading it across the spectrum, dividing it up into portions and using “smart” antennae. As radio increasingly moves onto microchips, “software-defined radios” will be able to switch standards and frequencies as they go.

The proliferation of wireless systems has pushed up the demand for spectrum and increased its value. There are hopes that “cognitive” radios may eventually alleviate the problem by sharing huge swaths of spectrum intelligently—but they have yet to be invented.

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Overcoming hang-ups

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Belle Mellor

Mobile operators have more high-speed networks than they know what to do with

FROM a glass office on the 32nd floor of Samsung's R&D centre, an hour's drive from Seoul, the site of a huge property development known as “Ubiquitous City” is visible in the distance. Soon its grey concrete foundations will sprout a set of ultra-modern apartment blocks where everything is connected and controlled online. Samsung executives are proud of it because it ties together much of what their company is involved in, from home appliances and consumer electronics to mobile communications. Many other South Korean firms are also taking part, encouraged by the government. Joo Sik Lee, the head of new-business development at SK Telecom, the country's largest mobile operator, explains why such projects are so important. “Everyone already has a mobile phone,” he says. “We have to find new business models and new uses.”

SK Telecom has introduced mobile-payment technology and is experimenting with health-monitoring devices. It is adding RFID readers to its phones so people can get information about products. It is even co-ordinating activities with its parent company's construction arm to add wireless automation to around 120,000 homes in South Korea this year. For a monthly subscription of about $5 this will enable residents to check their thermostat, security system and fire alarm and switch their lights on and off from afar.

In Japan similar projects are under way. Tests are in progress on cars with wireless systems that will prevent collisions—seen as the next great innovation that will bring together the country's cherished IT and car industries. A private school in Tokyo has put wireless beacons on children's backpacks to keep track of where they are. At the Mitsukoshi department store in the chic Ginza district, RFID tags on cosmetics by Shiseido provide shoppers with more information about the products.

So far these sorts of wireless systems are relatively basic, admits Kazuo Murano, the president of Fujitsu Laboratories. But they mark the beginning of a new infrastructure that can be extended to many uses, just as new software on a PC enables it to do new things.

The enthusiasm for new wireless technologies in parts of Asia is mirrored in Europe and America. Mobile operators are investing billions of dollars in building new networks that provide fast internet access. 3G systems are being upgraded and an upstart technology called WiMax is being explored. Many executives hope that this will connect not just people and their phones but also gadgets, machines, pets, cars and homes.

But many problems remain to be resolved. There is no telling whether there will be any demand for such services because the technology is not yet in place, and nobody knows how to charge for such things. Cyber-security is a huge headache. And many of the uses envisaged involve short-range communications, such as dimming a light or transferring a video from one medium to another, that may never make use of the mobile network at all.

Worst of all, a world in which devices can join the network, do as they please while they are connected and leave again at will (like PCs logged on to the internet) runs counter to the telecoms industry's culture. It prefers to control customers' activities, both to ensure quality of service and to keep rates high. The same “walled garden” approach that prevents people from using Skype (a web-based telephone service) on their mobiles also ensures that they remain free of viruses. For the moment the vast majority of revenue comes from voice calls. As call rates drop, operators hope to make up their income by providing music and videos to the handsets.

Yet some mobile operators are trying to change their business models. Sprint Nextel's chief technology officer, Barry West, imagines a world in which someone who buys a television or washing machine from any shop and plugs it in can connect it to Sprint's network. The network itself will be open to the internet and users will be able to do what they like, rather than being funnelled to content providers with which the operator has a business relationship, as happens with most mobiles today. Mr West will be able to provide such freedom because he plans to change the way customers pay for his company's service. Instead of charging for every bit of communication—a call over a particular distance for a particular duration—he will use flat-rate pricing, the way that people pay for internet service.

A clever pipe

Will that not turn his wireless network into a “dumb pipe”, a mere commodity? “It's absolutely not dumb,” he insists. Sprint intends to charge a premium for special services, just as airlines charge more for a business-class seat, he says. Moreover, he plans to sell much of the information he has about his customers to advertisers. So, for example, interactive billboards at a bus stop may be tailored to young mothers at one moment and beer-guzzling sports fans the next. “We're migrating from a telecoms company to a media company,” he says.

Sprint is the first mobile operator to come up with a plan of action for a wireless internet world. Yet all operators are feeling the pressure of the internet. There is plenty of evidence that customers want to control their phones as they do their PCs, by adding new software, and pay for service at a flat rate as they do for the internet.

Pricing is critical. In Europe the average monthly airtime per user is under 250 minutes; in America it is more than 1,000. The most likely reason for the difference is the charging structure. When Japan's NTT DoCoMo introduced a flat fee for sending data such as photos from a phone, its network traffic was said to have risen many times over within days. Many people in America and Europe take pictures with their mobiles, but very few send them to other people because they are worried or uncertain about the cost. Sprint hopes to woo customers by simplifying the price and providing open internet access.

Sprint's business model echoes the internet approach in other ways too. For its new network the company chose WiMax, a technology that is supported by the computer industry, notably Intel, rather than by traditional telecoms vendors. WiMax uses the internet protocol to provide smooth online access, unlike mobile networks that carry the traffic over other protocols developed for phone calls. “If you try to use a phone or BlackBerry to access the web, it is a trying experience today at best,” grouses Paul Otellini, Intel's boss.

Industry experts argue over whether WiMax works better than enhanced 3G cellular systems, but most reckon that their performance will end up much the same. The difference is in the way the equipment is made and sold, notes Vanu Bose, the founder of Vanu, a wireless firm. The computing industry likes open standards so that any device can be replaced by any other, whereas the telecoms sector has long benefited from locking customers in with proprietary standards. And sometimes pieces of kit from different makers do not work smoothly together.

WiMax does away with this problem by establishing a standard that puts everyone on an equal footing. The hope is that this will bring costs down to a commodity level for wireless gear, just as it did for computers. The royalties that firms will need to pay to license the intellectual property is expected to be lower than at present. ABI Research estimates that just four firms own almost 60% of the patents in 3G technology, pushing licensing rates as high as 28.5% of the cost of the equipment. WiMax's patent pool is more evenly distributed among more firms, and rates are expected to be around 5%.

The network provider will not subsidise customers' devices, as mobile operators do at present to entice people into signing on for a year's subscription. So WiMax not only lowers operators' costs; it changes their approach to business. The problem is that it has barely got off the ground. Networks are still at the

trial stage and mass-market devices are not expected until 2008.

For all the industry's lofty visions, it must confront uncomfortable realities. For instance, Samsung and LG, another big South Korean conglomerate, more often link their appliances with cables and power lines than with wireless technology. And for all the wizardry of SK Telecom's home-automation system, people in trials do not seem to use it much. The operator is considering bundling the service free with online entertainment packages. Even “Ubiquitous City,” some executives admit, is more hype than reality.

This is not the first time that the industry's plans have been delayed. In the lead-up to the 3G spectrum auctions in Europe in 2000, some carriers thought that linking machines and devices would account for around 12% of their revenue, notes David Benello of McKinsey, a consultancy. But in the event the industry decided to concentrate on people and phones, not factories and farm equipment.

Now operators are having another go at machine-to-machine communications. Orange, a pan-European operator, has created a special business unit, M2M Connect. Other carriers have similar plans. Yet despite the talk, they are more interested in their mobile business than in pursuing M2M. That is a pity, because they have the customers, the expertise on network security and the experience in managing millions of devices that would allow them to develop the new market successfully.

Connecting machines requires giving up control to users, observes Tim Whittaker of Cambridge Consultants, which designs wireless systems. In fact, Orange M2M is criticised for trying to prevent customers from working with other operators. Thus even when mobile firms fall in love with M2M, the technology is suffocated by their embrace. Wireless innovation is more likely to come from smaller companies with a computing background. They are beginning to give machines eyes, ears and a voice.

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What the mousetrap said

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Belle Mellor

Machines catch on to smart talk

MANY companies claim to have built a better mousetrap. Rentokil has actually done so. The British building-services firm added a small sensor and a wireless module to its traps so that they notify the building staff when a rodent is caught. This is a big improvement on traps that need to be regularly inspected. A large building might contain hundreds of them, and a few are bound to be forgotten.

Since June 2006 thousands of digital mousetraps have been put in big buildings and venues such as London's new Wembley Stadium. The traps communicate with central hubs that connect to the internet via the mobile network to alert staff if a creature is caught. The system provides a wealth of information. The data it collects and analyses on when and where rodents are caught enable building managers to place traps more effectively and alert them to a new outbreak.

Upgrading the humble mousetrap took a number of innovations to come together. Wireless chips have got smaller, better and less expensive. Sensors require less power. Batteries last longer. Many other companies too have woken up to these advantages, adding wireless features to objects and machines to enhance their performance and open up new revenue streams.

Such machine-to-machine communications can take many forms, from advanced utility meters that provide readings in real time to credit-card terminals at shops and restaurants. Most cash machines communicate wirelessly over a secure data network. Carmakers are exploring vehicle-to-vehicle communications to boost road safety. There are so many possibilities that the technology's champions sometimes get carried away. In 2003 the ARC Group, a British consultancy (since bought by Informa), forecast that by 2007 the market could be worth well in excess of $100 billion. In fact its value this year is likely to be around $25 billion, according to Juniper Research. Harbor Research reckons that the total may be as high as $48 billion if short-range wireless technologies, systems integrators and the like are included. What everyone agrees on is that the sector is now growing very rapidly. And as prices fall—as much as 20% a year for mobile systems, according to Gartner Research— growth is accelerating.

Expectations were so high because much of the technology exists already. Yet it is being held back by non-technical factors: the lack of integration among different parts of the industry and the need for companies to change the way they operate. In the computing world the providers of networks, hardware and software work relatively smoothly together because of common standards, from the size of printer plugs to digital interfaces in the operating system. But wireless M2M systems have to start from scratch every time.

Reasons not to connect

Building the wireless chipsets into the machines in the first place requires know-how, time and money. Components from different firms may not work together, so systems integrators such as IBM, Accenture or Capgemini have to be called in. Mobile network coverage is inconsistent, so relying on just one

operator is risky, and for movable things such as vending machines and cars, which may cross national borders, it is unthinkable. “Mobile virtual network operators” which resell airtime from scores of operators to M2M users could provide the required coverage, but they have been slow to emerge. Even trying to buy bulk airtime from individual carriers is difficult.

The list goes on. Back-office software to manage the system has to work with existing corporate software. Someone has to take care of billing and managing the devices. And as everyone takes their cut, the expense grows. “It is a very long value-chain for people to bring this together,” says Brian Tucker of Telit, which supplies cellular modules. Some consolidation is now taking place, and companies that bundle these functions are emerging in niches such as vehicle-fleet management. But integration remains a problem.

Vending machines are a striking example. At first sight giving them wireless connections seems an obvious improvement. It will allow their owners to check remotely on a machine's inventory, the amount of cash it contains and whether it is in working order, so staff can cut down on their visits for restocking, servicing and collecting the money. When the idea was put forward years ago, it seemed to epitomise the advantages of M2M.

But things have not gone as planned. In Japan, where much has been made of vending machines that accept payment via mobile phones, the vast majority are in fact unconnected. And in Europe only about half of the roughly 4m vending machines are reckoned to be worth upgrading with remote connections, which cost between $100 and $300 a go. Progress even on those is proving slow.

Part of the reason is the sheer difficulty of getting all the relevant businesses together. Vending machine companies have to employ specialist IT and wireless firms, which in turn have to find suppliers. One firm that works with the vending industry, Vianet, found that arranging wireless access from the plethora of mobile operators across Europe was so difficult that it decided to make this a business unit in its own right that supplies access to other M2M sectors.

The biggest obstacle, however, was not technology but the nature of the vending industry. Though the machines are stuffed with well-known brands from large companies, the firms that manage them are often small family businesses. Adding wireless technology means a lot of internal changes. What looks like improved efficiency on paper means a total reorganisation in practice, including job losses. Paul Green of Vianet recalls a conversation with the boss of a European vending-machine firm who stopped a programme promising cost savings of 30% because it was causing too much disruption.

Nice idea—if someone else pays

Another question that inhibits take-up, even among those who are interested, is who should pay for the installation. Putting a wireless terminal into a vending machine is attractive not just for inventory and maintenance but also because it will allow payment via mobile phone. But it is not clear who should pay, so no one does, says Anders Franzen of Wavecom, which sells cellular modules for machines.

Despite the difficulties, wireless vending machines are starting to emerge, but not in the way originally envisaged. Machines that sell pricey things such as iPods and DVDs are now being connected to the internet so companies can gather sales data and fine-tune the products on offer. Most importantly, the network connection also handles credit-card transactions, a necessity for higher-value items.

For mobile operators, moving into the M2M market makes perfect sense. It places low demands on the network. The average traffic load per device is around a quarter of a megabyte per month, estimates Paul Smith, the boss of Wyless, an M2M network provider. And corporate customers stick around for much longer than individuals do. Yet for customers, adding wireless connections to machines is risky because the technology is evolving so fast. And balancing the interests of everyone who has a stake in the system can be hard.

Certainly the car industry has found it so. Adding wireless features to cars has been under discussion for years. Some new cars in rich countries now come with satellite navigation; some have Bluetooth so that mobile phones and digital-media players can connect with the car's speakers. But long-range, two-way communications are being introduced only slowly. So far only 15m vehicles worldwide are connected, although numbers are expected to grow by 40% a year to more than 60m in 2011, according to Visant Strategies.

For the moment the technology is being used only in a few luxury cars and some rented cars and lorries. In Germany, lorries have had a GPS and mobile system to pay road tolls since 2005. Some regulators require telematics to ensure that lorry drivers are getting enough rest. Logistics firms themselves use such systems to communicate with drivers on the road.

General Motors in America offers a service called OnStar that can remotely diagnose engine trouble, contact emergency services after an accident and provide roadside assistance at the touch of a button. It already has more than 4m subscribers and an estimated revenue of more than $1 billion a year.

But getting wireless connections into cars on a large scale has proved difficult. Carmakers envisage vehicles communicating automatically with others nearby to signal road hazards or prevent accidents. Others see wireless as a source of new revenue from services such as traffic information. Regulators in Europe and America would like cars to contact emergency services automatically after an accident, and the police want to track suspects. (Tellingly, mobile operators are not keen on the idea. They are worried about liability if their network is not up to snuff.) Consumers could download maps, restaurant information and media content.

No escape

It is not easy to get agreement on who should pay for all this. Nevertheless, where it has started to happen, it has launched some innovative business models. For example, PassTime, an American company, leases cars to people with poor credit histories. The wireless device allows the company to switch off the ignition if payments are missed, and to find the car if it is stolen or has to be repossessed. Around half a million cars are already equipped with the system.

“Pay-as-you-drive” insurance schemes are also gaining ground. Last year Norwich Union and Royal & Sun Alliance, two British insurance firms, began offering car insurance based on driving patterns, made up of a modest fixed rate and a variable element depending on where and when the customer drives. The car is fitted with GPS and a mobile connection. Under Norwich Union's plan, driving down a motorway (where accidents are rare) on a Sunday afternoon costs a penny a mile; cruising on a suburban road (where mishaps are more frequent) on a Saturday night is a hefty £1. The driver benefits because he has some control over what he pays. Insurance companies benefit by creating an incentive for drivers to avoid risky situations. The system can also track the car if it is stolen and pinpoint its location if it breaks down.

Robin Duke-Woolley of Harbor Research reckons that such new business models, which he calls “smart services”, will be a good reason for companies to add wireless technology to machines. Not everything lends itself to this treatment: aeroplane engines, for example, are too hot, so they have wired sensors, and printing presses usually sit deep inside buildings, so they use fixed-line access. But for many things—even simple mousetraps—wireless is just the job.

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A sense of things to come

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Sensors can keep a remote eye on almost anything

Belle Mellor

THE military uses for wireless technology are persuasive. For example, pilots can fly above a war zone and drop thousands of small wireless sensors, the size of a small pebble and costing a dollar apiece, over the terrain. As soon as they settle the devices start communicating with each other, weaving themselves into a dense digital mesh. They pick up vibration and sound, so they can identify advancing troops. The sensors can also detect the presence of nuclear, chemical or biological agents. The information they pick up is relayed to a satellite. For power, they "scavenge" energy from the environment, using solar energy or temperature changes.

The civilian uses are equally impressive. Forest rangers can drop the sensors from aeroplanes to detect fires, showing their exact location and how fast and in what direction they are spreading. Smaller versions the size of grains of rice can be used by airlines in the innards of aircraft to check for the presence of large insects or rodents that might interfere with the wiring. Still smaller versions the size of specks of salt can be added to paint, turning entire surfaces into wireless sensors that can detect motion or act as smoke alarms or security systems.

The trouble is that as yet such sensors do not exist. But a lot of practical work is already going into making them a reality. A version of the military scenario above, for instance, was rehearsed in an experiment in March 2001 at an American Marine Corps base in California. Around a dozen nodes the size of a matchbook were released by a miniature unmanned aircraft. They were able to measure the speed and direction of vehicles from ground vibrations. This proved that the technology, although still at an early stage, was viable.

The military experiment was supported by America's Defence Advanced Research Projects Agency (DARPA) and arose from a programme called "smart dust" at the University of California at Berkeley in the 1990s. It created some of the technical foundations needed for sensor networking, such as a pared-down computer operating system, database and protocol for sensors to send traffic (but "sleep" as much as possible to prolong battery life). The technologies are open standards, so may be used freely by other firms, just as the underlying protocol of the internet is open.

With DARPA's early support a gaggle of companies have emerged, such as Dust Networks, Arch Rock and Moteiv (from research at Berkeley) and Ember (based on work at MIT). Other companies, such as Crossbow Technology, Millennial Net, Sensicast, Tranzeo and MicroStrain, are applying the innovations to their existing technologies. Wireless-sensor technology is now moving out of military testing grounds and into the commercial world. It is used for things like monitoring and controlling industrial machinery, automatic temperature regulation in buildings and keeping tabs on the environment.

Whereas M2M communications generally involve wireless devices attached to equipment such as cars or vending machines that link up to the cellular system, sensor networks use small chips that are often embedded into the device and use a local-area network that may never connect to a larger one such as the cellular system or the internet. For the moment the sensors are not yet widely deployed: the technology is still maturing and customers need convincing that it is worth having. But the idea is gaining momentum. Once the volume goes up, prices will come down and follow-on innovation will speed its adoption.

A good place to get a glimpse of new wireless technologies in action is BP's Cherry Point Refinery in Blaine, Washington. Built in 1971 on almost four square miles (10 sq km), it has a daily throughput of

225,000 barrels of crude oil. The site also produces 8% of the world's calcined coke, which finds its way into one out of every six aluminium cans. Modernising the plant to keep it efficient is costly; BP says it has spent nearly $500m on this over the past ten years. Fields of tanks need to be monitored for operational, safety and environmental purposes. But snaking wires across such a huge area is expensive.

New wireless technologies are critical, explains Tim Shooter, who works on future technology at BP. They allow more operations to be monitored and controlled and save money at the same time. The average refinery has around 3,000 “instrumentation points” where data on things like temperature, flow, humidity and vibration are collected; managers would be even happier with 10,000 points if only they were less pricey. The cost of the basic monitoring devices ranges from $1,000 to $10,000 apiece. Although adding wireless functions to these sensors almost doubles that cost, it reduces the price of installation by 50-90%—and installation makes up most of the total cost. By upgrading some processes to wireless systems, Mr Shooter believes each refinery will be able to save at least $1m a year.

Getting better all the time

Until a few years ago wireless technology was not up to the job. The “big leap forward”, says Mr Shooter, is that the new technologies are far more reliable in hostile industrial conditions and the communications protocols are more intelligent.

One notable innovation is “ad-hoc mesh networking” in which each node on the network—eg, a sensor on a water pump—is both a transmitter and a receiver and can join the network whenever required. Earlier wireless technologies assumed that sensors would send data to a specific receiver, in a hub-and-spoke fashion. This had many drawbacks. For a start, it made the system inflexible. If you added a new node, the whole system had to be reconfigured and the network became harder to manage. And if a central receiver failed, the whole system collapsed.

The newer technology remedies these faults. Each node can relay traffic to other devices, creating an interlocking web. It needs less power because the data travel only a small distance to another node. It is self-organising and self-healing. If one node goes down, the system finds an alternative path for the traffic. And the more devices are attached, the more efficient and resilient the network becomes.

Factory controls like those at BP are obviously useful, but they do not add up to a volume business. A good example of a large-scale application is building management. Thanks to wireless communications, lighting, heating and air-conditioning can be controlled centrally to keep energy bills down. So when a guest checks out of a hotel the receptionist can adjust the air-conditioning to stop it needlessly chilling the furniture. This could also be done through a wired system, but wireless technology offers lower installation costs and greater flexibility.

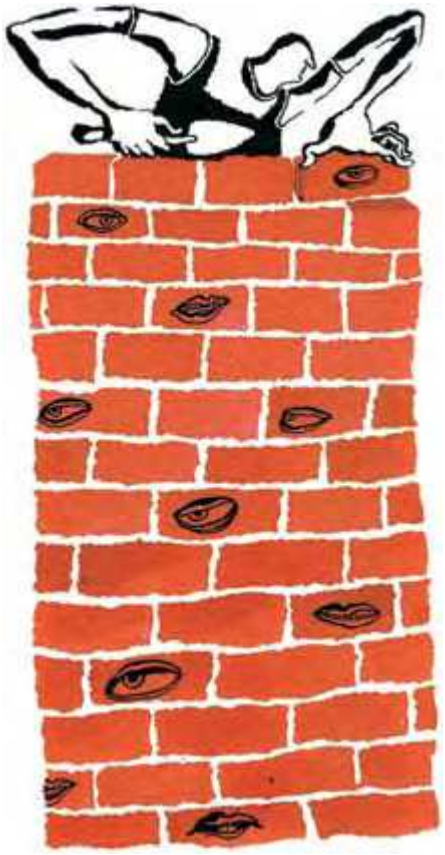
Guest appearance

Some firms are installing such systems in older buildings as well as integrating them into new ones. Riga Development, a wireless-technology firm in Toronto, has worked with hotels in Canada and the United States to replace ageing analogue thermostats with digital ones that are around 35% more energy-efficient. It wirelessly links the new temperature-control panels with heating and air-conditioning units, at a cost of around $350 per room. Each room can also be controlled from the front desk. And thanks to the wireless mesh network, the panel in each room also acts as a relay for the data traffic from other rooms back to a central control point.

At a medium-sized office park in Las Vegas, wireless temperature controls were installed in a few buildings containing around 200 offices, says the media-shy maintenance manager (who did not want his or the company's name to be used). Temperatures in the Nevada desert tend to extremes and landlords are responsible for energy bills, so managing a building's climate makes a difference to the bottom line. The new wireless thermostats allow rooms to be controlled centrally on a PC or over the web. The adjustments that tenants themselves are able to make can be controlled too, so that heating or air-conditioning is not used to excess. The system was cheap to put in, mainly because it required very little installation, the manager explains. Tenants are happier and the savings on the energy bills have been considerable, he says; “conservatively 25%”.

These uses of wireless are just the beginning. Sensors are not only

being added to devices that already have electronics on them, but being put on to things that were formerly bare of any technology at all. For example, they are being fitted to buildings, bridges and roads to monitor their structural integrity. The sensors can identify stress and early cracks that need attention. Sensors are also being used to monitor the environment. Scientists now use them to measure the climate in areas that would have been impractically small when sensors were more costly—say under individual plants rather than in a thicket.



Wireless sensors are also cropping up on farms, to measure temperature, moisture and light on tracts of land where wired sensors cannot easily go. Among the first big users are vintners, because their crop is particularly valuable and even small variations in climate can ruin it. Ranch Systems, for instance, supplies equipment and software to a dozen vineyards in Northern California. A fleet of sensors allows growers to monitor wind, water and soil and air temperature. This helps them set the watering schedule to suit the different needs of each part of the vineyard and manage frost, disease and pests, explains Jacob Christfort, the founder. “It is a little like da Vinci and the helicopter,” he says, referring to the artist's famous sketches that presaged later inventions. “These things were conceptually possible all along, but some mundane advances are required before it all comes together and somebody actually does it.”

The technology has become so accessible that it is sparking a cottage industry of small entrepreneurial firms. Moteiv is putting sensors on firemen's uniforms to relay information about the fire and let their colleagues know exactly where they are. The system can even provide the firemen with information such as floor plans, projected onto their masks. Other applications now on sale include wireless home-security systems and wireless beacons for sailors to tell the crew when someone has fallen overboard.

Yet the very diversity of its uses highlights one of the barriers to the development of the technology: they all have to be put together in a bespoke fashion. Wireless technology is so new that it has yet to be simplified and standardised, as most technologies are over time, notes Monica Paolini of Senza Fili Consulting.

Another complication is that nobody really knows how much stress a collection of wireless sensors will put on a network, other than that it will probably be different from what happens on the internet. Much internet traffic is asymmetric, with computers at the edge of the network receiving hundreds or thousands of times more traffic than they send. A single mouse-click to request a file brings a massive YouTube video in return. With sensor networks this traffic asymmetry is inverted: they send far more data than they receive. Although each individual consignment of data is tiny, they add up. And some sensors send out a steady heartbeat, if only to say “I'm still here!”, which sets off a communications session throughout the network.

What worries engineers most is how to deal with all the data produced by the sensors. “The good news is that you can get all these data; the bad news is that you have to do something with them,” says Kris Pister, the co-founder of Dust Networks. Efforts are under way to increase the processing power of the sensors so that they can analyse the information themselves rather than just collecting it and passing it on.

But this wealth of information creates opportunities as well. Teruyasu Murakami of Nomura Research Institute believes that having things continuously connected to a network will open up new markets and new ways of living. And Bob Karschnia of Emerson Process Management, which designs and builds factory automation systems such as the one at BP's Cherry Point Refinery, digs through the mountains of data to find new ways for businesses to operate. At times, he philosophises about what the technology means. The interconnected machines are akin to the brain's neural pathways, he suggests. “If we are computing and connecting like the brain, we should be able to emulate memory,” he says. “How do you create ‘memories' in the processes of a factory?”

As machines talk to other machines, they may uncover facts and relationships that are not apparent to people. That may enable factories to “learn” and find ways to become more efficient. What happens on the factory floor will make its way, in a different form, to office buildings and homes. The next step is for wireless technology to enter human beings themselves.

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Cutting the cord

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Wireless energy makes wireless devices look easy

THE most ubiquitous accessory for wireless devices is the wire used to power them. That limitation could be overcome by using electromagnetic waves to transfer energy. The idea has been around since soon after their discovery: Michael Faraday found in the 1830s that changing a magnetic field induces an electrical current in a nearby wire. One of the first patents registered in the 1890s by Nikola Tesla, one of Edison's former assistants, was for “radiant energy”. The pioneers of radio were also those of electricity; the two disciplines were initially one.

Much of the research on wireless energy transfer lay fallow for a century. It was difficult and dangerous, and there was no immediate need. But the proliferation of small wireless devices has sparked new interest in the idea. “Nobody wants to have to change the batteries in their door,” says Tim Fowler of Cambridge Consultants, a wireless engineering firm.

There are several kinds of wireless energy transfer. One, dubbed “radiative”, involves generating an electromagnetic field. A special receiver picks up a bit that has not naturally dissipated in the air and converts it to electricity. The energy can travel nearly three metres (ten feet) to keep a small battery charged, but most of it is lost before it gets to the receiver and the power supplied is extremely low. The technology, pioneered by Powercast in Philadelphia, will be deployed for the first time this year by Philips, for lights on things like Christmas decorations.

A second technique relies on magnetic fields. It is still at an experimental stage and works using resonance. When two objects resonate at the same frequency, they transfer energy well—just as a child easily maintains momentum on a swing when he uses his legs to move in synch. The use of magnetic resonance allows energy to be transferred in useful quantities and almost entirely to the device. But again it can travel only a few metres. Even so, ever since its inventor, Marin Soljacic of MIT, presented his work at a conference last autumn he has been besieged by calls from venture capitalists.

Another way of transferring energy, called “inductive coupling”, is not so much wireless as plugless. Power is sent on almost direct contact, for example, with a mat on which gadgets can be placed to recharge. This system, with a few variations, is used by start-ups such as Splashpower in Britain and WildCharge and Fulton Innovation in America. It avoids the need for cables and connectors to charge gadgets and can be built into many surfaces, such as car dashboards or office furniture.

It helps that computer chips now need much less power than they used to. Gene Frantz at Texas Instruments calculates that the power requirements of a chip of a given capacity roughly halve every 18 months, a less-noticed corollary to Moore's law. Despite the advances, power consumption remains a serious constraint. The amount of energy a battery can store per unit volume is increasing by 8% a year, but the needs of ever more powerful electronic devices are going up more than three times as fast.

Another method is to “harvest” energy from the environment, converting heat, light or vibrations that occur naturally. For example, sensors in a skyscraper could be powered by the normal sway of the structure. And certain materials are “piezoelectric”, meaning that they naturally become deformed by heat or vibrations, generating an electrical current that can be captured and stored. The technology is young but advancing fast. Commercial products are already being sold by a host of companies such as Perpetuum in Britain and Ferro Solutions, Midé Technology, KCF, TPL and MicroStrain in America. The hiccup is that very little energy is generated and the harvesting mechanisms are sometimes larger than the devices they power.

Yet another solution could be fuel cells. Unlike batteries, which simply store energy, fuel cells actually generate it from volatile stuff such as hydrogen or methanol. Basic versions of the technology already exist to recharge devices such as mobile phones. But just try getting on board an aircraft with a full-fledged fuel cell in your laptop.

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Wireless incorporated

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Gizmos are starting to be slipped inside people

Belle Mellor

THE Baja Beach Club in Barcelona is an unlikely demonstration model for wireless technology. Bikini-clad waitresses serve drinks to guests as a DJ mixes music from a motorboat perched above the dance floor. But the club made headlines three years ago when it introduced a unique form of entry ticket to its VIP area: a microchip implanted in the patron's arm.

Slightly larger than a grain of rice and enrobed in glass and silicon, the chip is used to identify people when they enter and pay for drinks. It is injected by a nurse with an intimidating syringe under a local anaesthetic. In essence, it is an RFID tag. If a special tag-reader is waved near the arm, a radio signal prompts the chip to transmit an identification number which is used to call up information about the wearer in a computer database. Otherwise the chip is dormant. The "intelligence" of the system is in the computer, not the capsule.

It is the first time that chips have been placed in humans as a means of identification and payment, gushes Conrad Chase, the club's co-owner, who came up with the idea and was the first volunteer to be "tagged". "I know a lot of people have fears about it," he says. But he points out that many people already have piercings and tattoos. "Having a radio-transmitting chip under your skin makes you very unique," he says wryly.

All this for a *mojito* might seem a bit extreme—which for a night club is precisely the point. Even so, take-up has been low: only 94 people have been tagged in Barcelona and 70 at another Baja club in Rotterdam. But as go the bohemians, so, eventually, go the rest of us.

CityWatcher.com, an American firm that provides video surveillance in cities, has experimented with tagging two employees to give them access to areas where sensitive data are stored. VeriChip, another American company that sells chips and readers, provides it to hospitals to manage patients (though only around 200 people have so far raised their arm to get one). The idea of tagging immigrant workers in the United States has been brought up in Congress.

There is much more to come. As wireless technology improves, it is not only getting attached to machinery and embedded in the environment, but slipping under people's skin as well. And RFID capsules are small fry. There are far more advanced wireless medical devices that measure body functions and transmit the information from the skin surface or from inside the body. As the huge cohort of baby-boomers grows older and becomes more interested in preventive medicine, people now aged 50 or younger are quite likely to have some form of wireless gizmo attached or implanted in their lifetime.

Wireless technology has been used in medicine for decades. Pacemakers rely on a basic wireless system to set a stable heartbeat. Ultrasound and X-ray technologies are wireless. But as microchips become more powerful, devices shrink and battery life is extended, a host of companies are vying to take wireless technology deep into the human body.

Some wireless devices are ingested. Others are implanted. Some are attached to the body and linked to a network. It is still early days, but the systems are improving fast. "The basic technology to make these things happen exists; the big issue is how to make this economically viable," says Maarten Barmentlo, the chief technology officer of Philips's consumer health-care division.

Inside story

Already a gaggle of gadgets is available for specialised uses. Take the PillCam, developed by Given Imaging in Israel, a tiny two-sided camera the size of a very large pill which patients swallow. It has been used in more than half a million gastro-intestinal endoscopy tests since 2001. One version is used to diagnose disorders of the oesophagus and another for those of the small intestine. It snaps a pre-set number of pictures per second and sends them wirelessly to a data recorder worn on the patient's waist. The images are downloaded to a computer for diagnosis. The $450 capsule passes through the bowel naturally and is flushed down the toilet.

This method lets people go about their normal business for most of the eight-hour test, during which up to 50,000 images are generated. It marks a vast improvement on an older technique that involves pushing a long tube through a patient's digestive tract. Although that procedure allows doctors to take tissue samples, it is uncomfortable and risks irritating the tract. Now Given Imaging is in clinical trials with a wireless camera for inspecting the colon, and is developing another for the stomach. The company faces competition from Olympus, a Japanese camera-maker, which is using similar technology.

Other wireless systems are implanted in the body. Medtronic, a large medical-device-maker, is developing many products that use wireless communications. Last year it won regulatory approval for an implantable defibrillator that links up with hospital equipment or a home monitoring device. Along with three other companies—CardioMEMS, St Jude Medical and Remon Medical Technologies—Medtronic is racing to market a device for congestive heart failure, which afflicts many millions of people worldwide. Once implanted, the device will measure pressure and fluid inside a patient's heart and wirelessly send the data to an external unit. With regular monitoring, patients will be alerted to abnormalities at an early stage.

There are two ways of making the wireless work, marking a division in the industry about the future of wireless technology in health care. Medtronic and St Jude currently make large-matchbox-sized devices—in essence, miniaturised computers—that are implanted in the chest and connected to the heart with leads, but can be interrogated wirelessly from outside the body by a reader at close quarters.

A more novel approach involves either radio waves or ultrasound technology. CardioMEMS uses radio-frequency technology, activating the chip in the implanted device by a reader that sends a burst of energy (like an RFID tag) to which the device responds with the heart-pressure information. Remon relies on a form of ultrasound that transmits energy to power the chip and prompt it to send back its pressure readings. Because the electromagnetic frequencies it uses are low, the reader can be farther away.

All four companies' heart-failure devices are still at the trial stage. In March Medtronic suffered a setback when a panel at America's Food and Drug Administration rejected its device, called Chronicle, because the trial data showed it to be insufficiently effective. Meanwhile, Remon is applying its technology to what it calls “intra-body wireless communications”. By dividing up the signal, this allows several devices inside the body to relay information to each other or to a receiver without interference, just as a radio can be tuned to different stations. So an implanted glucose-level reader in one part of the body could communicate with an implanted insulin-pump elsewhere, says Hezi Himelfarb, the boss of Remon.

Such scenarios are not so far from being realised. Sensors for Medicine and Science (SMSI) is developing a glucose sensor to be placed just under the skin of the forearm that connects to a watch-like wireless reader. This will probably become the most common way of deploying the technology: not by surgery deep into the body, but by inserting a sensor below the skin that can last for months or years, and having a wireless reader nearby.

This is the method used by Thomas Ferrell of the University of Tennessee, who has developed an implantable capsule that measures ethanol concentration in the blood. He says it could be used by alcoholics who volunteer for monitoring as an alternative to prison. The technology, funded by the National Institute on Alcohol Abuse and Alcoholism, is currently being tested in animals. Dr Ferrell expects it to become available commercially within two years.

Listen to me

Earlier Dr Ferrell spearheaded a DARPA initiative to create a tiny chip that would fit into a person's ear and monitor vital signs such as body temperature, pulse and blood pressure. The work was put on ice five years ago because of the huge cost of developing the technology that was available at the time. But now that the cost has fallen and the technology improved, the project is becoming feasible. Later this

year the work is due to be resurrected by a start-up, Senior Vitals, to produce sensors for monitoring elderly people.

The technology to monitor people's vital signs already exists: NASA does it for astronauts in flight. But for the moment there is no business model for applying it on the ground, no IT system to manage it and no company that could carry out the work. As with M2M communications, any system would have to be tailor-made, which would make it very expensive. And as with other wireless devices, powering the electronics is a problem.

Belle Mellor

But companies are beginning to show interest in the sector. Adi Gan of Evergreen Venture Partners, a venture-capital fund in Israel, says that numerous business plans in this area have crossed his desk in recent months. He sees a lot of promise. For example, a doctor might implant a sensor during surgery to offer far better post-operative monitoring and care. When the patient comes for a follow-up visit, the doctor's reader would power the chip, which would provide medical information. Tiny devices could even be used for treating diseases. They might be powered wirelessly to, say, burn new cancer cells in an area that had previously been treated.

Such uses of wireless seem far removed from the mobile phones which vast numbers of people carry with them at all times. But there is a connection. As the use of wireless medical devices grows, the best way of collecting the data and sending them to a remote monitoring centre may turn out to be the patient's mobile phone, which will be close enough to receive data from the low-powered implanted device. It could be the critical bit of infrastructure between wireless communications in the body and the global internet. Just when people are starting to think of the mobile phone as a wallet, they find that it is becoming the family doctor too.

Mobile-phone operators understand the potential. South Korean and Japanese carriers are experimenting with technologies that let people monitor their heart rate, blood pressure and other vital signs with home devices and transmit the data using a phone. Philips and GE are adding wireless technology to patients' home-monitoring devices. Yet today's mobile networks are not sufficiently reliable for anything other than non-critical uses, according to a study in 2005 from the University of Massachusetts in Amherst. And the operators' current pricing models are a major barrier, says Matt Welsh of Harvard University, who is developing sensors for the continuous monitoring of vital signs.

For now the advances are largely coming from the IT industry, not the medical sector, which is noted for its conservatism. Whereas pharmaceutical firms are starting to use RFID tags on medicine packages as an anti-counterfeiting measure, other companies are working to put RFID tags onto individual pills. In January Kodak filed for a patent on an edible RFID tag which could be used, for example, to examine the digestive tract or check whether a patent has taken his medication.

It all seems a long way from the Baja Beach Club, where Mr Chase goes about his nightly routine. He reviews images from security cameras, some of which are wireless, and then locks an office with keys using a wireless ID system that records who enters where and when. The geeky stuff is his doing, but then he has form. Back in the 1980s, long before opening his nightclub, he served in the US Army Signal Corps, working on the ARPANET, the military precursor to the internet.

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The hidden revolution

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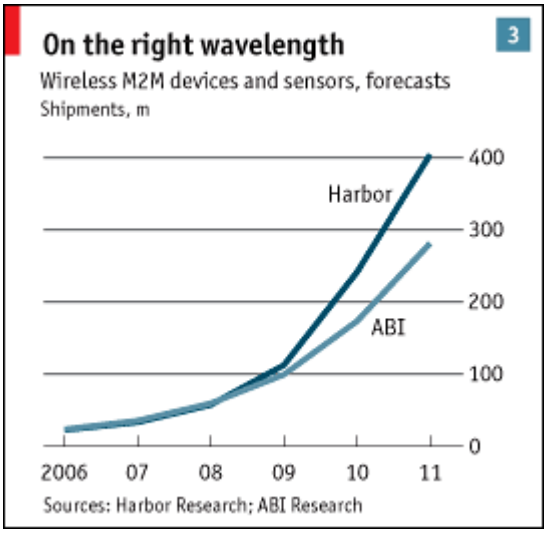
What you don't see will need careful watching

MACHINES, buildings, fields and human bodies have a lot to say, if only they are given a chance to talk. “The previous information revolution was IT, which was basically: take all the paper and turn it digital to share. What we provide [now] is a bridge to the physical world,” says Joy Weiss, the boss of Dust Networks, which makes wireless chips.

Yet dealing with lots of wireless gadgets everywhere is an unpractised art. Security must be assured and privacy protected. All those radio waves raise health worries. There may not be enough radio spectrum to go around as demand grows. And in the longer term disparate systems may converge and become interconnected, bringing up a whole host of new questions.



What is already clear is that the infrastructure required to support wireless communications will have to be massive. Already, tens of billions of e-mails, mobile text messages and instant messages are being sent through the world's public networks each day, not to mention quasi-closed networks used by stock exchanges, flight-reservation systems and the like. Each CDMA mobile phone communicates with a cell tower 800 times a second just for its power management.

VeriSign, which manages networks such as the internet's address system, the global RFID registry and mobile text messages, is spending $200m-300m on its system to handle a peak load of 4 trillion internet-address queries a day by 2010. Cyber-attacks are expected to grow at a rate of 50% a year. The design of the new systems will be critical and the penalties for failure severe. For example, faulty RFID infrastructure in the initial stages of the Iraq war in 2003 resulted in supplies to the value of $1.2 billion being lost during transport, according to the US General Accounting Office. Projects to embed robust RFID chips into passports and national ID cards around the world are beset with delays.

The issue is trickier than many people appreciate. As wireless systems become common in homes, businesses and public spaces, says Lee McKnight of Syracuse University and the founder of Wireless Grids Corp, they will eventually integrate and work together on the fly, in the same way that today a property website might choose to overlay Google maps on its listings. Moreover, the streams of data from devices and sensors are different in kind from what most people are used to: the information is “probabilistic” rather than definitive, explains Martin Illsley of Accenture. And the systems are vulnerable to being hacked into.

The way we look at privacy protection will need to be overhauled. Today it works like a minuet, with a defined set of partners and parameters, says Elliot Maxwell, a technology-policy guru and former official at America's commerce department. But M2M and sensor networks change the tune: the systems are more decentralised and interwoven. Who keeps an audit trail? How are the data verified? Who gives consent to whom? Today's privacy rules presume a relationship between citizen and government or consumer and company. But the way in which information will be generated and shared may involve so many parties that the minuet will turn into a punk rock concert.

The issues feel new because the technology is only just beginning to be deployed. Where it is already in use, with RFID chips, it has generated controversy. American Express has patented a technique to track people in public places based on the RFID tags in their clothing and products they carry, but has agreed not to use it without disclosing the fact, after pressure from privacy advocates. Last year a Wisconsin legislator proposed a law to ban any mandatory microchip implants in humans (although nothing of the kind exists as yet), or embedding a chip in a person without the recipient's knowledge. The European

Commission is set to issue guidelines on privacy and security standards for RFID technology later this year.

Silent chips

“The ‘silence of the chips' must be preserved as a fundamental right of citizens,” says Bernard Benhamou of the Institute of Political Science in Paris, who was a member of the French delegation at UN meetings on internet governance in 2003-06. Mobile phones, he believes, should be able to pick up the presence of sensors. People should be able to read basic RFID tags—and destroy them too to preserve their privacy. Such rights, he says, will become more important as wireless technologies become small enough to be invisible.

Yet the technology cuts both ways. Prisons in America are experimenting with bracelets that have wireless chips embedded in them to keep track of inmates. It sounds Big Brotherish, but prison officials say that violence among prisoners has decreased. Guards are also tagged, so prisoners may feel safer from abuse.

A 2004 report for the European Parliament on the effects of new wireless technologies on health and the environment argued for the “precautionary principle”: holding back until any adverse effects have become clear. But in practice that is hard to do. The report recommended that technology products be sold with factual labels, rather like processed foods, so consumers will know how much radiation they emit, how much energy they use and so on. The report did not cover privacy, but there should probably be disclosure of the presence of wireless systems too.

Another possibility is to separate the data. Adam Greenfield, in his book “Everyware: The Dawning Age of Ubiquitous Computing”, published last year, makes an impassioned plea for “seamfulness”. Whereas the computer industry strives to make things as “seamless” (that is, integrated) as possible, he advocates keeping some networks and data apart.

Belle Mellor

Viktor Mayer-Schönberger of Harvard University's Kennedy School of Government has come up with a more innovative proposal: requiring information to be deleted over time. He describes this as a legal and technical version of human forgetting. Today's computer systems do not do that; tomorrow we may wish they did.

We are in the early stages of the creation of a new industry, reminiscent of computing in the early 1970s when companies began to adopt it in earnest. There was plenty of resistance. The systems were difficult to operate and seemed to be set up for nerds. The economic benefits were questioned. There were privacy and regulatory worries. Yet in time the rough edges were smoothed and everybody benefited.

Technology rarely evolves in the way that people think it will. When Marconi invented his wireless telegraph, he never imagined broadcast radio. A decade earlier Heinrich Hertz had famously declared: “I do not think that the wireless waves that I have discovered will have any practical application.” To the men at Bell Labs in 1947 the transistor was simply an efficient replacement for vacuum tubes; they had no inkling of its use in computers. Today these technologies are omnipresent: televisions in every home; computers in every office; phones in every pocket; radio towers looming overhead.

What is different about new wireless communications is that people will barely notice them. Machines will talk to machines without human intervention. But humans will nevertheless be laying the foundation of a new infrastructure which, like the electrical power grid, will become a platform for subsequent innovation. There is no saying how it will be used other than that it will surprise us.

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The film industry

Endless summer

Apr 26th 2007 | LOS ANGELES
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Sony Pictures

How the business of making blockbusters has changed

FOR connoisseurs of derivative film-making, the next few months will be a joy. Between early May and mid-August Hollywood will unveil sequels to “Spider-Man”, “Shrek”, “Harry Potter”, “Rush Hour”, “The Bourne Identity”, “Pirates of the Caribbean”, “Fantastic Four”, “Ocean's Eleven”, “Die Hard” and “Bruce Almighty”. Admittedly, not all of this summer's big-budget films are based on other films. “The Simpsons” and “Transformers” are based on television programmes.

It is safe to predict that none of these films will be artistically adventurous. Reviewers will dislike them, as they have disliked crowd-pleasing films since 1914, when a critic bemoaned “the terrible sense of rush and hurry and flying about” in contemporary cinema. But none of this concerns the people who produce such films. They know that blockbusters draw punters to cinemas and DVD racks more reliably than any other kind of film.

Since 1975, when “Jaws” chewed up the competition, Hollywood has increasingly relied on summer and Christmas blockbusters to tide it through leaner months. The summer season, which used to begin in June, has crept forward to early May. Production and marketing budgets have mushroomed. “Spider-Man 3” is said to have cost more than $300m, or half as much again as “Titanic”, the price of which terrified Fox executives in 1997. If few are so alarmed these days, it is because the economics of blockbusters have changed.

To see how, compare the performance of two films, both released in late May. “Indiana Jones and the Last Crusade”, which appeared in 1989, and “X-Men: the Last Stand”, released last year, appealed to the same broad audience of children, teenagers and indulgent parents. Each was the third instalment of a three-part series. They were both successful, earning almost exactly the same in real terms during their first two months in American cinemas.

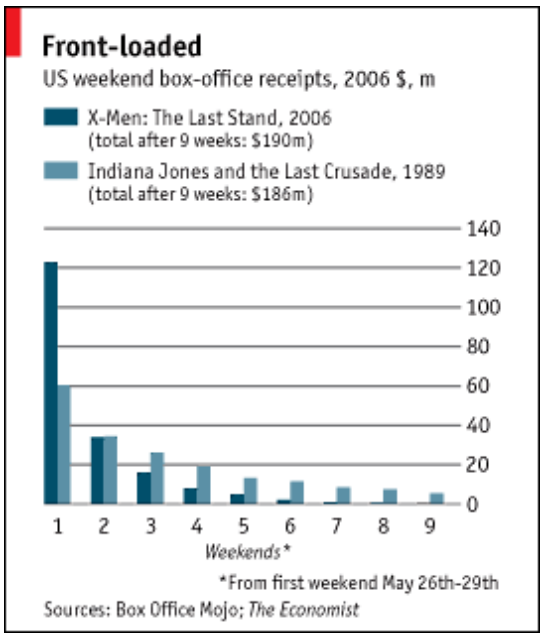
But their lives at the box office were dramatically different (see chart). “Last Crusade” had a healthy opening weekend and a slow decline. “X-Men”, by contrast, came and went in a flash. It earned $123m in just four days, more than in the remaining four months of its run.

Both films are typical of their time. The first modern blockbusters, such as “Jaws” and “Star Wars”, were released on a few screens and grew slowly (ticket sales for “Star Wars” peaked in the 11th week). Over the years the hillock of box-office revenues became a downward slope, then a cliff face. Given this year's crowded schedule, the drop-offs will be

vertiginous.

One reason is growing capacity. The number of cinema screens in America rose from 29,700 in 1996 to 39,700 last year. Because the supply of seats is greater than the potential weekend audience for almost any film, marketing campaigns aim to lure customers en masse before the next big film appears. These days blockbusters form an orderly queue, rarely competing on the same weekend.

Another reason is the growing importance of the small screen. American cinema-goers account for no more than a quarter of a film's total revenues. Foreign audiences supply another quarter, with the remaining half coming from television, product licensing and—the biggest single contributor by far—sales of DVDs. Last year a silver disc appeared, on average, just four months and eight days after the same film opened in cinemas, according to the National Association of Theatre Owners—five weeks sooner than in 2002.



Oddly, this has made the opening weekend's box-office sales more important. As Jim Gianopulos, the co-chairman of Fox, puts it, the theatrical release of a film now represents the launch of a product that will be consumed in a variety of forms. The first few days' tally is not just a reliable predictor of later DVD and television sales; it is, in effect, an advertisement for them. Lest anybody fail to notice, studios place advertisements in newspapers and trade magazines pointing out how well their films are doing.

The clearest sign that big-budget sequels are dependable is that the studios risk their own money on them. Hedge funds are encouraged to invest in most films, but not big franchises such as “Harry Potter” or “Pirates of the Caribbean”. And blockbusters have other advantages. Cinemas are so desperate for them that they can often be persuaded to show less promising fare as well. Trailers that run before big movies reach huge audiences. A hit also gives studios licence to swagger.

A few clouds have begun to drift over the summer skies, however. One problem is that DVD sales, which boosted profits for a decade, are slowing. Between 1997 and 2002 sales of DVDs in America grew by 50% or more each year, according to the Digital Entertainment Group. But they were flat in America last year and revenues fell in Britain and Germany. New formats such as Blu-ray, HD-DVD and online downloads have not enticed many buyers.

Another headache is that the studios' partners are driving harder bargains. Having worked out that DVDs are profitable, stars are demanding—although not always getting—a larger share of “back-end” sales. Cinemas, which used to be paid using complex formulae that entitled them to a greater share of box-office receipts the longer a film stayed open (an arrangement that suited the studios just fine, given the short lives of many films), are now more likely to receive a fixed share of the total sum. Consolidation in recent years has made them tougher.

The biggest problem, though, is the growing sums being wagered each weekend. Blockbusters have always been global products, but the threat of piracy and the rapid spread of opinion on the internet, which can quickly inform cinema-goers around the world if a film is a turkey, means they are now likely to be released almost simultaneously everywhere. “Spider-Man 3”, for example, will open in China, France, Germany and Japan on May 1st, then migrate to America and Britain three days later. Stars, who can be in only one place at once, cannot provide much publicity, and marketing campaigns have to get it right first time. The potential for catastrophic error has never been greater. If this summer's big gambles fail, expect a lot of hand-wringing and a retreat—though probably only a temporary one—from the blockbuster model.

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Sensory branding

Sound effects

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Companies tune in to the potential of sound

YOU may not have heard of Walter Werzowa, an Austrian composer, but you know his work. He is the man responsible for Intel's “sonic logo”, the five notes that interrupt PC advertisements whenever the chipmaker is mentioned. Intel's success in creating awareness of a product that consumers do not see shows how sound can be an effective (and irritating) branding tool.

But such sonic logos are just “parlour tricks” compared with sound's wider business potential, says Julian Treasure, the author of “Sound Business”, a new book on the subject. He reckons that companies fail to pay enough attention to the sounds of their products, offices and shops. Shiny surfaces such as glass and steel may look great, but they add to noise levels—fine for buzzy bars, poor for office meeting-rooms (which should be carpeted). Open-plan offices can make it difficult for staff to concentrate: dedicated “quiet rooms” are one answer.

The right auditory environment can also deliver a jolt to revenue. Studies in America have shown that the tempo of background music affects the pace at which shoppers move and diners eat. Faster music in a restaurant can speed up the flow of diners. Slower music can lead people to spend more time in stores, so that they are more likely to buy something. Mr Treasure is a fan of “generative music”, which relies on computer algorithms and is faintly hypnotic. BAA, an airport operator, recently tested a “soundscape” made up of generative music, birdsong and crashing waves at its Glasgow terminal, alternating it daily over a period of eight weeks with silence. (The soundscape can be heard here.) When the soundtrack was playing, takings in the terminal's shops went up by as much as 10%.

Marketing types are becoming more interested in sensory branding. Muzak, an American firm that announced plans on April 12th to merge with DMX, a rival, used to be associated with bland musical wallpaper. It now positions itself more as a brand consultancy, identifying the songs that suit a particular company from a library of 2m tracks, tagged according to mood. And why stop at sound? Muzak has a partnership with ScentAir, which champions the business use of another neglected sense: smell.

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German business

Unfair and amateurish

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The boss of Siemens is the victim of a badly executed boardroom coup

AP

Kleinfeld, hard done by

JUST days after the resignation of Heinrich von Pierer as head of the supervisory board of Siemens, the leadership crisis at Europe's biggest engineering group claimed a new victim. On April 25th Klaus Kleinfeld, the chief executive, said he would no longer be available to extend his contract, which finishes at the end of September. “In times like these, the company needs clarity about its leadership,” he said at the meeting of the company's supervisory board in Munich.

The board's Machiavellian manoeuvres had given him little choice but to quit. In the six days between Mr von Pierer's announced resignation and the board meeting, board members circulated rumours about their desire for a successor to Mr Kleinfeld to help the firm make a fresh start as it grapples with three separate criminal investigations into alleged bribery.

One director, Josef Ackermann, the boss of Deutsche Bank, is keen to repair his reputation after a scandal over bonuses awarded to former executives at Mannesmann, a mobile operator that was taken over by Vodafone. And Gerhard Cromme, who replaced Mr von Pierer as head of Siemens's supervisory board, wants to reinforce his image as the pioneer of corporate-governance reform in Germany.

Faced with persistent speculation about his future as boss of Siemens, Mr Kleinfeld told the 20-strong board before their gathering that he would leave the company if they did not make a firm commitment to renew his contract. When he did not get the two-thirds majority he needed he announced his departure, even before the meeting had ended.

Siemens is losing a capable leader. The group is in much better shape today than it was in January 2005 when Mr Kleinfeld took over. On April 24th Siemens reported a 10% increase in revenue, to €20.63 billion ($27 billion) and operating profits up by 36% for the three months to the end of March. So far Mr Kleinfeld's integrity is unblemished. Investigations by Debevoise & Plimpton, a law firm, have found no indications of any misconduct by him.

Mr Kleinfeld's main problem was his lack of allies in Germany's chummy corporate elite. His American management methods seemed brash to industrialists and union representatives on Siemens's board, who were more used to Germany's consensual style of corporate leadership. The 49-year-old Mr Kleinfeld will have no difficulty finding a new high-profile job in America. He rose to become the heir apparent at Siemens while running its American operations for three years, during which he oversaw its listing on the New York Stock Exchange. As a board member at both Citigroup, a big American bank, and Alcoa, an American aluminium firm, he is well connected.

Who will take his place? Mr Ackermann and Mr Cromme are in touch with Wolfgang Reitzle, the boss of Linde, an industrial-gases group, whom they would like to make boss of Siemens. Mr Reitzle says he wants to stay at Linde. Very few top managers have intimate knowledge of Siemens's sprawling businesses, ranging from medical equipment to trains. Messrs Ackermann and Cromme may come to regret their attempt to appear as the enforcers of their firm's “clean hands” policy.

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Brazilian airlines

In the driving seat

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Consolidation means Brazilian aviation is now ruled by two low-cost carriers

Reuters

Out with the old, in with the new

ITS boss, Constantino de Oliveira Júnior, used to be South America's second-best Formula 3 racing driver, so it is fitting that Gol has come from nowhere to become Brazil's second-biggest airline and the world's second most profitable (after Ireland's Ryanair). This month Gol broke the mould, by taking over what is left of Varig, once Brazil's national flag carrier. In a fast-growing market, the deal positions Gol to take the lead.

In 2001, when Gol was founded, employee-owned Varig still had 40% of the market but was crumbling in the face of competition from TAM, which matched its service but had far lower costs. Into this one-sided duel stepped the Constantino family, which ran a fleet of buses and spotted an opening for a discount airline. Its entry changed the market again. Varig collapsed under the weight of its self-serving management and TAM had to trim its costs and services. Brazilian aviation now consists of two fast-growing, no-frills airlines and a handful of small regional carriers.

To swallow a decrepit full-service carrier would be suicidal for an airline with a mission to “popularise air transport”, but that is not what Gol is doing. Varig entered bankruptcy in 2005 and was sold last year to its former freight subsidiary, owned by an American vulture fund, Matlin Patterson. Its staff was cut by four-fifths and its flight schedule was pared back drastically. Gol is not buying a full-fledged airline, says André Castellini of Bain, a consultancy. What is left is the brand, a frequent-flyer scheme and the rights to fly on various domestic and international routes.

To Gol, the domestic slots alone are worth the $320m price tag, says the company's finance chief, Richard Lark. Varig will cater mainly to business travellers, which means offering a bit more legroom and direct flights, while incorporating Gol's low-cost practices. Gol expects to cut Varig's operating costs by 10-15% in the next three years. Varig's international routes will also give Gol a foothold in the market for long-haul flights and feed passengers into its domestic network. With lower costs and nimbler management, “Gol will certainly surpass TAM,” predicts Respício do Espírito Santo of Instituto CEPTA, which studies air transport.

Varig brings other benefits that Gol is less keen to talk about. Although demand has been growing by more than 15% a year, Gol and TAM have been buying aircraft at a fast clip, pushing prices down. Buying Varig removes a competitor and sees off a potentially dangerous challenger. The other suitor for Varig was LAN, an expanding Chilean airline that has taken on business in Argentina, Peru and Ecuador and has its eye on Brazil. With the Brazilian market now a near-duopoly, fares are expected to firm up.

Even so, the deal is not risk-free. Some analysts worry that Gol will eventually have to swallow Varig's 7 billion real ($3.5 billion) debt to its former employees and the government, though Mr Lark insists the debt remains the responsibility of Varig's bankrupt husk, now a separate entity. Gol may find that the long-haul business is less profitable than expected. Mr Castellini suspects that Gol may eventually walk away from the international routes. The secret, says Mr Lark, will be to preserve Gol's flexible, driven culture as it grows.

And Brazilian airlines' biggest problems are beyond their control. Traffic growth has strained airports to breaking point, and disgruntled air-traffic controllers have been disrupting flights off and on for the past six months. The result has been a nightmare of cancelled flights and slumping sales. Gol has proved its racing credentials, but it is not clear whether Brazil's aviation infrastructure can keep up.

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General Motors

Rising in the East

Apr 26th 2007 | LIUZHOU AND SHANGHAI
From The Economist print edition

Though struggling at home, General Motors is doing well in China

THE industry saw it coming, but it is a symbolic milestone nonetheless. Figures released this week show that General Motors has been overtaken by its Japanese rival, Toyota, which became the world's biggest carmaker in the first three months of this year, with global sales of 2.35m vehicles to GM's 2.26m. As it restructures itself, America's top carmaker has wisely cut back on discounted sales to car-rental firms, boosting revenue per unit but reducing overall sales. Slipping from first place, where GM has been since 1931 apart from a few strike-related blips, will dent the car giant's pride. But the good news is that GM's American business seems to be on the mend—and it is on top in China, the world's most promising car market.

Sales of cars and light trucks in China reached 7.2m in 2006, making it the second-largest national market behind America, and the fastest-growing. GM's brightest hopes now lie half a world away from Detroit in places like the southern Chinese city of Liuzhou, set against a striking landscape of steep limestone karsts. The factory operated in Liuzhou by SGMW, GM's joint venture with two Chinese firms, Wuling and Shanghai Automotive Industry Corporation (SAIC), is bright, clean and almost as efficient as any car-assembly line in the world. Each day it turns out more than 1,000 Chevrolet minicars and Wuling minivans, not much bigger than a Mini Cooper and starting at $3,500. Margins are slim but labour costs are only around $100 per vehicle, says Tom Drumgoole, SGMW's vice-president. SGMW's sales grew 36% to 460,000 vehicles last year, outpacing the wider market.

GM also has a separate joint-venture with SAIC, called SGM. Its prospects seemed dim when it was set up in 1997: the market was a tenth of its size today and was dominated by commercial vehicles, yet the Chinese government decreed that SGM would make cars, to be sold under the then-fading Buick brand. Last year, however, SGM sold more Buicks in China than GM did in America. The gap is likely to widen now that Buick is China's top car brand, says Rick Wagoner, GM's boss. SGM has doubled the size of its Shanghai plant to meet demand and will soon add a third daily shift to increase production.

Another of GM's Chinese ventures is PATAC, a sophisticated design and engineering centre in Shanghai operated with SAIC. This was where they designed the Buick Riviera, a sleek coupé that made its debut at this month's Shanghai Motor Show. Although it is just a concept car, its design is likely to influence new Buicks in both China and America, hints Ed Welburn, GM's design chief.

One danger for GM is that SAIC is starting to introduce new vehicles under its own brands, such as Roewe, outside the SGM joint venture. The Roewe 750 saloon has been well received, and at the Shanghai show SAIC displayed a prototype of the Roewe W2, a mid-market family car. It will be some time before SAIC's own brands are a match for Buick, but through its Chinese partnership GM is “supplying bullets to the enemy,” says Joe Phillippi, an analyst at AutoTrends Consulting in New Jersey. For the time being, however, China remains GM's most promising market, and one that might even enable it eventually to regain the lead over Toyota, which made a slow start in the country.

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Cars

Logan's run

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From The Economist print edition

The cheap and cheerful Renault Logan is a genuine "world car"

AFP

Mr Frugal and his car

ONE of Carlos Ghosn's favourite words is "frugal". As boss of Renault-Nissan, a Franco-Japanese carmaking alliance, he likes to talk of "frugal management". Now, as his firm rolls out the Logan, its low-cost "world car", in developing countries across the globe, Mr Ghosn has found a whole nation to help champion his cause. "India's not just a market—it's where we learn to be frugal," he says.

Renault-Nissan is learning from Mahindra & Mahindra, an Indian conglomerate with interests from tractor-making to financial services. Mahindra Renault, a joint venture formed in 2005, launched a new version of the Logan in India this month with a price tag of $7,100 before tax. The development of the new model cost 15% less than expected and was completed a month ahead of schedule. Compared with the original Logan, which Renault designed in Romania after acquiring the former Dacia factory near Bucharest, the new version has better styling, beefed up suspension to cope with India's poor roads and improved air-conditioning.

Patrick Pélata, Renault's product and strategy chief, likens the cheap and cheerful Logan to a basic mobile phone that just makes and receives calls. Since 2004 over 450,000 Logans have been sold in 51 countries. The car is variously sold under the Renault, Nissan and Dacia brands.

The initial sales target of 50,000 cars a year in India sounds modest, but Renault has big plans for India, where manufacturing costs are 10% lower than in Romania, says Mr Pélata. Sales of new cars are growing by 10% a year and are expected to reach 2m by 2010. Renault Mahindra is investing $950m in a new factory in Chennai that will be capable of making 350,000 vehicles a year and will build six Logan models, including an estate and a hatchback.

The new Indian-developed version of the car will also be introduced into several other countries, including Argentina, Brazil and Mexico. But perhaps the most unusual new market for the car is Iran, where it went on sale last month. Despite petrol rationing and some unkind words from the industry minister, who says the Logan is "mediocre", customers are undaunted. The Tondar, as it is known locally (the name means "thunder" in Persian), has broken all sales records: over 100,000 pre-orders were placed within the first week, 85,000 of them accompanied by a deposit of 51% of the sale price, which starts at 82m rials ($8,870). Many buyers have not even seen the car. Deliveries start next month.

The Iranian model is being built with Iran Khodro (IKCO), the Middle East's biggest carmaker, and by Saipa, Iran's second-largest carmaker, both of which are controlled by the state investment authority. Renault's launch of the Tondar represents the biggest foreign investment in Iran outside the oil business, and will increase the country's carmaking capacity by nearly one-third. (The joint-venture agreement was

signed three years ago, before Iran became embroiled in a dispute with the United Nations.)

Since Iran's economic isolation began in the late 1970s, IKCO's staple product has been the Paykan (which the Tondar finally replaces), an almost unchanged version of the Hillman Hunter, built in a 1960s factory transplanted from Scotland. IKCO and other Iranian carmakers also did deals with Peugeot and South Korean firms. But their designs were always years out of date. The Tondar marks the first time in a generation that Iranians will be able to drive a modern car built in their own country. Renault even hopes to export cars to other countries in the region, subject to UN sanctions. Designed, built and sold in the developing world, the Logan is shaping up to be the VW Beetle of the 21st century.

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Face value

The chief executive's dilemma

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AP

Is Andrew Liveris of Dow Chemical right to resist the temptations of private equity?

“BOOKS will be written about it,” half-jokes Andrew Liveris, the boss of Dow Chemical and one of the leading protagonists in a corporate drama that is an intriguing sign of the times. On April 12th Mr Liveris abruptly fired two top Dow executives—Pedro Reinhard, a board member and former chief financial officer, and Romeo Kreinberg, the head of two of Dow's divisions—having accused them of secretly negotiating to sell the chemical giant to private-equity investors. The two executives deny any wrongdoing and say they are considering taking legal action against Dow. Mr Liveris says that the evidence of their “highly inappropriate” behaviour was “irrefutable”.

Until recently, the notion that he might have to fend off private-equity buyers would have seemed absurd to Mr Liveris, who publicly denied that there was any private-equity interest in Dow shortly before the firings. Dow's stockmarket value is around $43 billion, which until the unprecedented fund-raising by private-equity firms in the past year or so, and the accompanying surge in the availability of debt to finance takeovers, was well beyond their reach. But now, though buying Dow would set a new record for private equity, it would not be by much.

Inevitably, the firings have provoked an orgy of speculation, much of it centred on the role of the firm's bankers. Rumour has it that JPMorgan tipped off Mr Liveris about the discussions over a sale. Were that true, some Wall Streeters reckon, it would breach all sorts of informal investment-banking codes. Some observers wonder if the two ousted executives, by attracting a private-equity bid, were hoping to force Mr Liveris to sell the firm—shopping a company around is not unusual these days—or were even angling to replace him. Mr Reinhard just missed out on the top job in 2000, whereas Mr Liveris beat Mr Kreinberg to the post of chief operating officer in 2003.

Acting decisively in firing his two erstwhile colleagues typifies the management style of Mr Liveris, an Australian every bit as plain-spoken as the blokes back home in Darwin. The grandson of Greek immigrants, he is proud of his roots, though he now describes himself as a global citizen, having spent much of his 31-year career at Dow outside his homeland, mostly in Asia and recently at the firm's headquarters in Midland, Michigan. He thinks chemical companies need to be similarly forthright, and explain to the public that they “actually benefit humankind”. Although the industry is over a century old, he says, “the fact that modern life cannot continue without chemistry has not been articulated—we have been complacent.” This has left companies poorly placed to defend themselves against populist interventions, such as the European Union's recent REACH legislation, designed to prevent harm from

dangerous substances.

Mr Liveris is widely viewed as having done a good job since taking charge of Dow in 2004 after a period of turmoil at the top. In 2002 falling profits had led to the replacement of the boss by a former chief executive who then oversaw the transition to Mr Liveris. Profitability has been improved thanks to a cyclical upturn driven by demand from emerging economies and a strategy of placing greater emphasis on specialty chemicals. Mr Liveris has also reduced Dow's debt and adopted an “asset light” strategy based on joint ventures, most recently with Libya's National Oil Corporation. Lately, however, he has been criticised for failing to make promised big acquisitions—his largest so far, Wolff Walsrode, had annual revenues of $650m—which has left a cash mountain that is tempting private equity. Mr Liveris says he is considering several $1 billion-plus deals, but has no intention of buying businesses if he harbours doubts about them.

As for selling Dow to private equity, Mr Liveris says that he and the board would properly consider any offer, as they are bound to. But no bid has been received, he says. Nor does he think—and this has been much debated at the top of the firm for the past two years—that going private would be better for Dow than remaining a public company. In this, he is bucking a powerful trend. Nowadays, chief executives of public companies are far more likely to be accused of selling their firms too cheaply to private equity—in the expectation that they would personally be well rewarded by the new owners—than to be criticised for resisting private equity's overtures.

Resisting the sirens' call

Given the recent increased scrutiny of executive pay at public companies, “it would be so much nicer for me to be in private equity,” Mr Liveris admits. But going private would be a bad idea for Dow, he believes. It is such a highly integrated firm that the break-up said to have been proposed by rumoured buyers would make no sense. And it remains a cyclical business, he says, despite the falling share of commodity chemicals in Dow's output. So it is unsuitable for the classic private-equity strategy of loading the balance sheet with debt, which would make Dow vulnerable during the inevitable cyclical downturn. Going private would ease short-term stockmarket pressure, he concedes, but it would simply be “trading one pressure for another”.

Mr Liveris clearly understands the lure of going private, and reading between the lines it is evident what he thinks may have motivated his former colleagues. “Excess liquidity in private equity has created temptation like there has never been temptation before,” he says. At the same time, Mr Liveris is satisfied with how recent events have been handled by the firm. “I'd like to say proudly that Dow is built on integrity. I'm proud our board stood tall, and drew a line in the sand,” he says. Yet the drama may have more twists to come. Perhaps a private-equity bid will be tabled, possibly even a hostile one—the first on such a scale in the present buy-out boom. And any prospective new owner knows that there are now two experienced former Dow executives available for hire, should they be needed.

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Australia's water shortage

The big dry

Apr 26th 2007 | MURRAY MOUTH, SOUTH AUSTRALIA
From The Economist print edition

Rex Features

Australia is struggling to cope with the consequences of a devastating drought. As the world warms up, other countries should pay heed

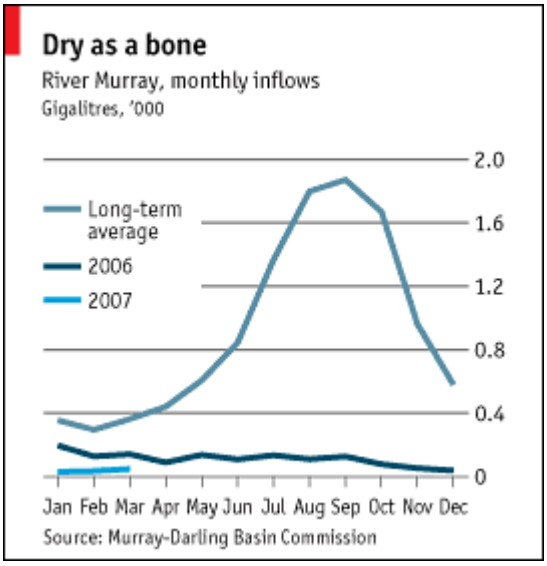
THE mouth of the Murray-Darling river sets an idyllic scene. Anglers in wide-brimmed sunhats wade waist-deep into the azure water. Pleasure boats cruise languidly around the sandbanks that dot the narrow channel leading to the Southern Ocean. Pensioners stroll along the beach. But over the cries of the seagulls and the rush of the waves, there is another sound: the mechanical drone from a dredging vessel. It never stops and must run around the clock to prevent the river mouth from silting up. Although the Murray-Darling is Australia's longest river system, draining a basin the size of France and Spain combined, it no longer carries enough water to carve its own path to the sea.

John Howard, Australia's prime minister, arrived here in February and urged the four states through which the Murray-Darling flows to hand their authority over the river to the federal government. After seven years of drought, and many more years of over-exploitation and pollution, he argued that the only hope of restoring the river to health lies in a complete overhaul of how it is managed. As the states weigh the merits of Mr Howard's scheme, the river is degenerating further. Every month hydrologists announce that its flow has fallen to a new record low (see chart). In April Mr Howard warned that farmers would not be allowed to irrigate their crops at all next year without unexpectedly heavy rain in the next few months. A region that accounts for 40% of Australia's agriculture, and 85% of its irrigation, is on the verge of ruin.

The drought knocked one percentage point off Australia's growth rate last year, by the government's reckoning. It is paying out A$2m ($1.7m) a day in drought-relief to farmers. If mature vines and fruit trees die in the coming months through the lack of water, the economic fallout will be more serious and lasting. Most alarming of all, the Murray-Darling's troubles are likely to worsen. As Australia's population continues to grow so does demand for water in the cities and for the crops that grow in the river basin. Meanwhile, global warming appears to be heating the basin up and drying it out. Although few scientists are confident that they can ascribe any individual event—including today's drought—to global warming, most agree that droughts like the present one will become more common.

Many of the world's rivers, including the Colorado in America, China's Yellow river and the Tagus, which flows through Spain

and Portugal, are suffering a similar plight. As the world warms up, hundreds of millions of people will face the same ecological crisis as the residents of the Murray-Darling basin. As water levels dwindle, rows about how supplies should be used are turning farmers against city-dwellers and pitching environmentalists against politicians. Australia has a strong economy, a well-funded bureaucracy and robust political institutions. If it is struggling to respond to this crisis, imagine how drought will tear apart other, less prepared parts of the world.



Droughts have long plagued the Murray-Darling. The region is afflicted by a periodic weather pattern known as El Niño. At irregular intervals of two to seven years, the waters of the central Pacific warm up, heralding inclement weather throughout the southern hemisphere. Torrential rains flood the coast of Peru, while south-eastern Australia wilts in drought. The duration of these episodes is as unpredictable as their arrival. They can range from a few months to several years. As a result, the flow of the Darling, the longest tributary of the Murray, varies wildly, from as little as 0.04% of the long-term average to as much as 911%. Although the most recent El Niño ended earlier this year, it has left the soils in the basin so dry and the groundwater so depleted that the Murray-Darling's flow continues to fall, despite normal levels of rainfall over the past few months.

Protracted droughts are a part of Australian folklore. Schoolchildren learn a hackneyed Victorian poem in praise of “a sunburnt country...of droughts and flooding rains”. Dorothea Mackellar wrote those lines just after the “Federation drought” of the late 1890s and early 1900s. The recession that accompanied it was so severe that it helped nudge Australia's six states, at the time separate British colonies, into uniting as a federation, or commonwealth, as Australians tend to call it.

Water politics

Negotiations over the federal constitution almost foundered on the subject of the Murray-Darling. South Australia, at the mouth of the river, wanted it kept open for navigation to the hinterland, allowing the state to become a trading hub. Its capital, Adelaide, also depended on water piped from the Murray to keep its taps running—as it still does. Further upstream, Victoria and New South Wales wanted to build dams to encourage agriculture. Queensland played little part in the row, since its stretch of the Darling was sparsely populated at the time. In the end, Victoria and New South Wales agreed to ensure a minimum flow to South Australia and to divide the remaining water equally between themselves. Like their counterparts elsewhere in the world, Australian engineers gaily pockmarked the basin with dams, weirs and locks, with little thought for what that would do downstream.

By the 1990s the drawbacks were evident. For one thing, states were allowing irrigators to use too much water. By 1994 human activity was consuming 77% of the river's average annual flow, even though the actual flow falls far below the average in dry years. The mouth of the river was beginning to silt up—a powerful symbol of over-exploitation. Thanks to a combination of reduced flow and increased run-off from saline soils churned up by agriculture, the water was becoming unhealthily salty, especially in its lower reaches. The tap water in Adelaide, which draws 40% of its municipal supplies from the river and up to 90% when other reserves dry up, was beginning to taste saline. The number of indigenous fish was falling, since the floods that induce them to spawn were becoming rarer. Toxic algae flourished in the warmer, more sluggish waters. In 1991 a hideous bloom choked a 1,000km (625 mile) stretch of the Darling.

Such horrors stirred indignation among urban Australians. The bad publicity put tourists off river cruises, fishing trips and visits to the basin's various lakes and wetlands. Many small businesses got hurt in the process. The citizens of Adelaide, which contains several marginal parliamentary seats, began to worry that the taps would run dry. Farmers were also starting to fear for the security and quality of their water supplies.

So Australia embarked on a series of reforms that in many ways serve as a model for the management of big, heavily exploited rivers. New South Wales, Victoria and South Australia agreed to cap the amount of water they took from the river and to keep clear, public records of water-use rights. They also made plans to reduce salinity and increase “environmental flows”. The commonwealth agreed to encourage this by allocating buckets of cash to compliant states. All these initiatives were to be managed by a body, called the Murray-Darling Basin Commission, in which the commonwealth and the various riparian states, including Queensland and the tiny Australian Capital Territory (ACT), had equal representation and where decisions were taken by consensus.

Moreover, Australia's politicians also agreed to a set of principles by which water should be managed throughout the country. There should be no more subsidies for irrigation. Farmers should pay for the maintenance of channels and dams. For each river and tributary, scientists would calculate the maximum sustainable allocations of water and states would make sure that extractions did not exceed that figure. To ensure that such a scarce resource was used as efficiently as possible, water should be tradable, both within and between states. And the minimum environmental flows necessary to keep the river in good health should be accorded just as high a status as water put to commercial uses.

Guided by these principles, the states and the commonwealth have made much progress. By 1999 the average salinity of the river in South Australia had fallen by over 20%. In the late 1990s salinity levels were falling within the prescribed limit over 90% of the time, compared with roughly 60% in the 1970s and 1980s. The construction of fish ladders around dams and weirs, and the release of extra water into important breeding grounds, has spawned a recovery in native species. The commission is spending A$650m to boost environmental flows, mainly by stemming losses from irrigation, and hence leaving more water in the river.

The trade in water has taken off. There are two basic sorts of transaction: sales of part of a farmer's water allocation for the year or a permanent transfer. Temporary exchanges between farmers in the same state topped 1,000 gigalitres (220 billion gallons) in 2003, or around a tenth of all water used for agriculture. That roughly matches the cumulative amount of water that has changed hands permanently within the same state.

Meanwhile, the commission has codified rules for trading water between users in different states. The volumes are much smaller, but the system is working as economists had hoped. In general, water is flowing from regions with salty soil to more fertile ones; from farms that are profligate with water to ones that are more efficient; and from low-value crops to more profitable ones. In particular, struggling dairy and rice farmers in New South Wales and Victoria have sold water to the booming orchards and vineyards of South Australia. A government assessment of a pilot scheme for interstate trade determined that such shifts prompted A$767m of extra investment in irrigation and food-processing between 1997 and 2001. Another study found that water trading helped to reduce the damage wrought by droughts.

But there are lots of problems. For one thing, the reforms concern only water that has already reached the river. Farmers in certain states can still drill wells to suck up groundwater, and tree plantations absorb a lot of rainwater that would otherwise find its way into the river. Little dams on farms, which block small streams or trap run-off from rain or flooding, are an even bigger worry. Little is known about how many there are or how fast their numbers are growing. In theory, most states are trying to regulate them, but the rules are full of loopholes and enforcement is difficult. Hydrologists fear that the severity of

the drought has encouraged farmers to build more dams.

Some states are keener on the reforms than others. In 1995, when New South Wales, South Australia and Victoria agreed to cap the amount of water they took from the river, Queensland refused to join them on the grounds that it uses only a tiny share of the basin's water. The state government felt it had a right to promote irrigation along its stretch of the Darling to bring Queensland to the same level of agricultural development as the other states. It has since agreed to negotiate a cap. But earlier this year, despite the ongoing drought, it awarded new water-use rights to farmers on the Warrego, one of the tributaries of the Darling.

New South Wales, meanwhile, frequently exceeds its cap. Its farmers plant mainly annual crops, such as rice and wheat, instead of perennials like fruit trees or grape vines. If there is not enough water to go round, its farmers may suffer for a season, but their earnings are not permanently diminished. So the state tends to be less cautious in its allocation of water than Victoria or South Australia. However, the commission has no power to ensure that states stick to their caps. It can only denounce offenders publicly, in the forlorn hope that the shame will induce them to behave better.

Climate change is likely to exacerbate all these disputes. The Commonwealth Scientific and Industrial Research Organisation (CSIRO), a government agency, estimates that it could reduce the Murray's flow by as much as 5% in 20 years and 15% in 50 years. But other projections are much more cataclysmic. CSIRO cites a worst case of 20% less water in 20 years and 50% in 50 years. Peter Cullen, an academic and member of the government's National Water Commission, points out that inflows to the Murray have fallen to less than half of their long-term average over the past six years. He thinks it would be prudent to manage water on the assumption that low flows are here to stay.

Mr Howard argues that the Murray-Darling Basin Commission moves too slowly to cope with all the upheaval. He wants the states to surrender their powers over the basin to the commonwealth. That will allow his government, he says, to work out exactly how much water is being siphoned off through wells and dams, and to use that information to set a new, sustainable cap on water use.

The government would also help farmers meet the new restrictions by investing in more efficient irrigation or by buying up their water rights—all without any of the typical bickering and foot-dragging that have held up collective action in the past. To entice the states to agree, he is offering to spend A$10 billion of the commonwealth's money on the various schemes. But the advantage of adopting policies by consensus, presumably, is that they may prove more durable than anything imposed from Canberra. National governments, even in Australia, are not immune to inefficiency and bias. They are often at loggerheads with the states.

Moreover, not all Australians want to move as quickly as Mr Howard does. He faces an election later this year in which his environmental record—and particularly his lack of action on global warming—will be a big issue. Nor does the federal government have any experience of managing rivers. In a recent book, “Water Politics in the Murray-Darling Basin”, Daniel Connell argues that any institutional arrangement that fails to give enough weight to regional concerns will not last.

Running a river

Several state governments have their doubts about Mr Howard's plan. South Australia wants the administration of the river put in the hands of a panel of independent experts. Victoria, the only state to reject the prime minister's scheme outright, says that he could achieve the same goals without any extra powers by simply withholding money from recalcitrant states. Its government has also complained that the scheme would reward the most wasteful irrigators for their inefficiency, by helping to pay for improvements to their infrastructure and then allowing them to use much of the water saved. So the extravagant irrigators of New South Wales will end up with extra water, while their parsimonious counterparts in Victoria will benefit less.

Moreover, many Australians are uncomfortable with the idea of water trading, says Blair Nancarrow, the head of the Australian Research Centre for Water in Society, a division of CSIRO. People living in less fertile areas fear that local farmers will gradually sell all their water rights, eroding employment and commerce and killing off the area's towns. Concerned politicians have insisted on limits to the amount of water that can be traded out of regions and states each year and have refused to allow the commission to buy water directly from farmers for environmental flows. The National Party, the junior partner in Australia's coalition government, draws much of its support from the countryside and is particularly

reluctant to give free rein to the water market.

In the eyes of Mr Cullen, however, many of the changes Australians fear are inevitable. As it is, he notes, the amount of money farms make for every million litres of water they use varies dramatically between states, from roughly A$300 in New South Wales to A$600 in Victoria and A$1,000 in South Australia. He believes that investment and water will continue to gravitate towards the bigger, more professionally managed farms. In the long run, the irrigation of pasture for livestock, which currently consumes about half of the basin's agricultural water, will not make sense. The number of small, family-owned farms will shrink.

Ian Zadow owns just such a farm, near Murray Bridge in South Australia, which has been in the family since 1905. He is also head of the local irrigators' association. His son used to work on the farm with him. But farming cannot support two families, so the younger man has taken a job tending graveyards instead. “If you can pay all your bills and get three meals on the table,” says Mr Zadow, “that's about as good as it is going to get.”

At the moment however, things are nowhere near that good. Last year, he saw his allocation of water slashed first by 20%, then by 30% and finally by 40%. Next season, unless much more rain falls, he stands to get no allocation at all. He feels that city-dwellers should do their bit to help farmers by conserving more water. When push comes to shove, he says, politicians will always give priority to the cities over the countryside, since they are home to more voters. He also thinks irrigators in New South Wales and Victoria should be trying harder to save water. Before too long Mr Zadow's complaints may be echoed by millions of farmers around the world.

If the Australian drought continues, the thousands who depend on irrigation water for a living will be in deep trouble. Many are already in debt and struggling to make ends meet. When asked what will happen if there is no water for them this year, Mr Zadow hesitates for a moment before replying, “Christ knows.”

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European bank mergers

Sharpening the knives

Apr 26th 2007 | FRANKFURT AND NEW YORK
From The Economist print edition

Satoshi Kambayashi

The carve-up of a Dutch bank may help Europe's efforts to build an efficient cross-border banking system

ABN AMRO always assumed that it would be on the attacking end of a takeover bid, not on the receiving end of one. For that reason, Rijkman Groenink, its chief executive, had for years spearheaded a vigorous campaign to stop nationalistic European politicians from blocking cross-border mergers. This week he was caught in a trap that was partly of his own design. On April 23rd, days after the European Commission ordered Dutch regulators out of the way, ABN capitulated to a €66 billion ($90 billion) takeover bid from Britain's Barclays, in what could be the biggest banking merger ever. Then, two days later an even bigger potential offer blew in from a European consortium led by Royal Bank of Scotland (RBS), which aims to dismember ABN. This one verged on hostility, setting the stage for what could be the biggest and most bruising takeover battle in banking's history.

The contest involves numerous institutions, all betting astronomical amounts for a Dutch institution with offices in 53 countries that has never quite managed to piece its sprawling network together. Barclays offered €36.25 a share in an all-stock offer, which also included an agreement by ABN to sell its Chicago bank, LaSalle, to Bank of America for $21 billion. The RBS consortium, which includes Santander of Spain and Fortis, a Dutch-Belgian group, is offering €72 billion, of which €50 billion would be hard cash and the rest in RBS shares, valuing ABN at €39 a share. But it says its offer is dependent on the Dutch bank scrapping its proposal to sell LaSalle. Bank of America has given ABN a two-week window to shop for a higher offer. It will receive a $200m break-up fee if the deal falls through.

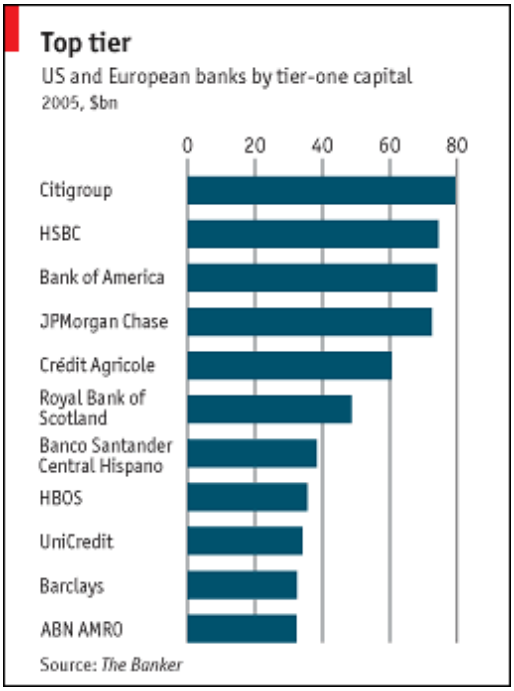
Activist hedge funds are also involved, bringing a hint of insecurity to the European banking landscape. They include the London-based Children's Investment Fund, which set the ball rolling by calling for a break-up or sale of ABN. Other hedge funds have since bought ABN shares, hoping that a hard-fought struggle to win the Dutch bank will increase the value of their investments.

Playing a big role, too, are regulators. The single-market commissioner in Brussels, Charlie McCreevy, has waded in to stop regulatory interference. In recent weeks, until Mr McCreevy slapped him down, there had been mixed messages from Nout Wellink, president of the Dutch central bank, some of them signalling how unhappy he would be to see ABN broken up. Even now, some worry about structural changes in a counterparty with big positions in complex derivatives—an estimated €10 trillion in notional principal in ABN's case. On top of this, a takeover might well move the bank's supervision to London. That is Barclays' intention and most likely RBS's as well. All of which must be galling to the Netherlands. Dutch authorities and Mr Groenink had battled since 2004 to stop regulators meddling in cross-border mergers, partly to facilitate the Dutch bank's incursion into Italy. They are not savouring the taste of their own medicine.

A takeover tussle of this scale and complexity would be sensational enough in any industry. But that it is taking place in a large, perfectly solvent financial conglomerate makes it doubly spectacular. It could shake up Europe's sclerotic and largely national banking structures, helping to break down the barriers blocking the much-dreamt-of single European market for financial services.

That is a long-running aspiration in Brussels, but so far progress has been haphazard. Often, takeovers have been triggered by the weakness of the target, rather than the potential strength of the marriage. So it was when UniCredit, an Italian bank, bought HVB, an ailing German bank, in 2005—the last big cross-border deal in Europe. Elsewhere, there has been a messy patchwork of transactions, such as BNP Paribas's takeover of Italy's Banca Nazionale del Lavoro and Crédit Agricole's buyout of Emporiki Bank in Greece.

Then there is that dream of every ambitious chief executive—world domination. Excluding HSBC, most European banks are no more than half the size of American war-horses such as Citigroup, Bank of America and JPMorgan Chase when measured by capital (see chart). A combination of Barclays and ABN would leap into the big league, and RBS would also be vastly more powerful with parts of the Dutch bank, such as LaSalle, in its pocket. Last week it emerged that UniCredit had also held unspecified talks with Société Générale of France. Such a partnership could exceed even that of Barclays and ABN in size; not to mention potentially stirring BNP Paribas, SocGen's French rival, into a bidding war.



Jean-Pierre Lambert, of Keefe, Bruyette & Woods in London, believes that there will be many more banking deals in Europe, possibly including hostile bids. New European Union banking legislation (due to be in place in about 18 months) requires that "bids should be assessed in a non-discriminatory way". The legislation does not differentiate between hostile or friendly deals, nor between deals that break up banks or keep them intact. In this light, says Mr Lambert, the French regulator's opposition to hostile takeovers of banks (the "Trichet doctrine") would not be allowable in a year and a half. "This means that banks face a simple choice: merge with a friend now, or risk seeing hostile bids in a year and a half," says Mr Lambert. He believes that this is one reason why UniCredit and SocGen might now be in merger talks.

Dutch auctions

Furthermore, technology is becoming ever more important and allows banks to extract more cost savings, even across borders. This makes deals in foreign territory more attractive. Banks are keen to diversify away from slow-growing, saturated home markets. Mr Lambert argues that the market is finally waking up to the merits of consolidation after years of wariness over differences in culture, laws, tax systems and language.

Merger activity by consortia, rather than by single banks, could be the way of the future, even if RBS and its allies fail to secure ABN, and Barclays, or indeed a third bidding party, walks off with the spoils. A consortium including two private-equity firms last week bought Sallie Mae, a big American lender. Cerberus, a private investment firm, was among the buyers of BAWAG, a distressed Austrian bank. With the help of private equity even smaller banks, such as the Germans, may take part in pan-European consolidation.

Private-equity firms have hitherto been shy of buying financial institutions because banks are already highly leveraged and there is not much scope to add to their debt load (which is how private-equity businesses put their capital to work). However, they might start sniffing around parts of a bank, such as its asset-management or mortgage business. If hedge funds are beginning to shake up the banking industry, it is a fair bet that buy-out firms will not be too far behind.

All of which comes back to ABN. Whatever happens, it looks as though it will be carved up, to a greater or lesser degree depending on who wins: Barclays and Bank of America, or rival bidders. Mr Groenink, who has already agreed to surrender his leadership if the Barclays deal goes ahead, confessed this week that he was "a little sad" that ABN would lose its independence after 183 years.

Of course he is. But for the rest of Europe, there are reasons for raising a cheer or two about the way the saga has played out. Break-ups are at last on Europe's banking agenda; if they can create value in other industries, why not in financial services? The regulatory environment is finally tilting in favour of cross-border deals. The single currency and more coherent systems for cross-border payment, mortgages and other financial transactions make transnational bank mergers more appealing. If that makes Europe grow faster, so much the better.

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The euro zone's economies

Strength to strength

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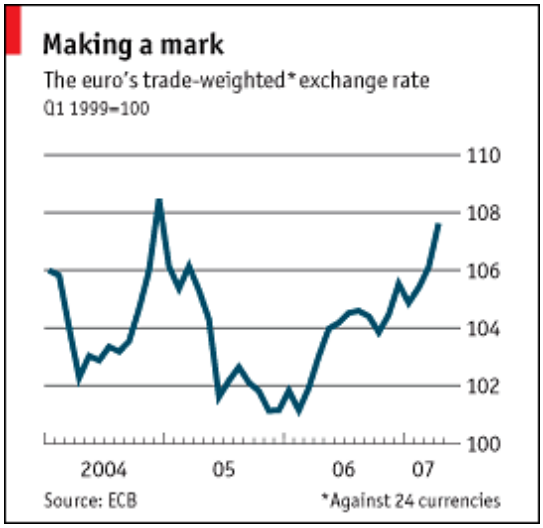
From The Economist print edition

Good times in the euro area, and getting better still

VIEWED one way, these should be nervous days for the euro area. Its exporters are having to cope with a rising currency, which has been nearing a record high against the dollar (and has notched one against the yen), and a slowing American economy. On the home front, Spain's long property boom may be coming to a dusty end (see article). The currency club's fourth-largest economy has accounted for nearly two-fifths of its net job creation since 1999, as well as a disproportionate share of its GDP growth.

However, viewing things another way makes more sense. Pleasant surprises continue to emanate from the euro area—notably from Germany, its biggest economy. This week Ifo, a Munich research institute, unveiled another strong reading for its monthly business-sentiment index. The country's five main economics institutes, including Ifo, have raised their forecast of GDP growth this year to 2.4%; last autumn they expected a percentage point less. French presidential candidates apart, the zone's politicians have been unusually accepting both of the currency's rise and of one of its causes: the European Central Bank's clear intention to raise interest rates further. The ECB is likely to take another step, from 3.75% to 4%, in June.

A faltering America and a falling dollar will, other things equal, hold euro-area exports back. But the greenback is not the only currency that counts. Though the euro has climbed by 5% against the dollar since early February, it has risen by much less against the pound and has fallen against currencies such as the Czech koruna and Hungarian forint. That has held the rise in its nominal trade-weighted rate against 24 currencies, calculated by the ECB, to 2.7%. This rate is still a bit weaker than in late 2004, when the zone's economy was in far worse shape (see chart).



Moreover, the pattern of exports has been shifting. The zone's fastest-growing markets are to the east. Julian Callow, of Barclays Capital, estimates that exports to the European Union's new and would-be members (including Turkey) and Russia went up at an annual rate of 20% in the second half of last year. They are now 19% of the total, up from 13% in 1999. Exports to Asia have also been growing fast.

Much of this demand from eastern Europe and Asia has been of particular benefit to Germany, a big supplier of capital goods. However, Germany's success is based on more than being in the right industries at the right time. Its bosses and unions have held wage increases below inflation for several years. That discipline may help German businesses to withstand the euro's rise better than others in the zone. Arguably, Germans have had not years but decades of practice. Before the euro was born, the D-mark was revalued more than once while French and Italian companies were featherbedded by devaluations of the franc and lira.

Possibly, this year's German wage round will undo some of this hard-won competitiveness. On April 26th the country's biggest union, IG Metall, said that it would call token strikes in North Rhine-Westphalia, the most populous state, from April 30th, after talks with employers broke down. Nevertheless, workers are unlikely to get anything like the 6.5% the union wants.

Anyway, a little extra in German pay-packets may do more good than harm, by giving domestic spending a boost. Although domestic demand across the euro zone has already taken over from exports as the main motor of growth, companies rather than consumers have provided the fuel. German consumers have been especially reluctant to spend.

This may be about to change. Not only might wage growth pick up, but unemployment has dropped by well over half a million in the past year or so. Fear of joblessness has faded. Both consumers and retailers seem more confident, and now January's increase in value-added tax is behind them. If Spain is about to struggle, a continuing German revival will be all the more welcome.

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Buttonwood

Sale of the century

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Companies are buying back their own shares at a record rate

BUY now while stocks last. The retailers' traditional slogan is being re-enacted in the American stockmarket. The supply of quoted shares is shrinking fast.

The biggest buyer is the corporate sector itself. According to Tim Bond, of Barclays Capital, American companies acquired (via takeovers and buy-backs) some $602 billion of shares last year. In the fourth quarter, the pace of purchases was running at an annualised rate of 6% of the entire market. April 23rd was the biggest day for takeover announcements since the AOL/Time Warner deal of January 2000 and the following day saw IBM announce a $15 billion buy-back. With that kind of support, it is hardly surprising that investors can shrug off economic and geopolitical concerns and push the Dow Jones industrials to a new record above 13,000, as they did on April 25th.

Mr Bond says this equity-buying splurge is almost exactly matched by the corporate sector's financial deficit—in other words, companies are borrowing money to buy back shares. This gearing up of the balance sheet is occurring when profit margins are at their highest level since the 1950s. It looks like hubris.

Investors are divided, however, between those who believe that profits are sustainable and those who feel they will inevitably revert to the mean. The bulls argue that the balance of power in the global economy has shifted decisively in favour of capital, at the expense of labour. The ability to outsource production to Asia is holding down wages. Improved economic stability makes life much easier for businesses to plan. All this means that the profit share of GDP should fluctuate around levels associated with the 1950s and 1960s, not the 1970s and 1980s.

Indeed, that businesses are buying back shares, rather than investing in new plant and equipment, may help sustain the cycle for a bit longer. Traditionally, business investment in capacity at the peak of the cycle has increased competitive pressures, dragging down margins. However, businesses' reluctance to invest may not be a good long-term sign. Pessimists, such as Mr Bond, would suggest that investment is needed to sustain profit growth; optimists would argue that investment is taking place, but in China and India, rather than in Europe and America.

Smithers & Co, an economic consultancy, takes a gloomy view, arguing that American profit margins are reverting to the mean and thus the prospects for company earnings are all downhill from here. It has observed an inverse link between profit margins and personal savings, which are very low in America. This creates the risk of a vicious circle in which any fall in the stockmarket will push up personal savings, depressing profits and hurting the stockmarket further.

The recent profits trend is far from clear. The latest figures from Morgan Stanley show annual earnings growth for S&P 500 constituents in the first quarter has been 10.3% to date, six percentage points above expectations. Around two-thirds of the results have been ahead of forecasts.

But this may reflect the recent trend for companies to play down their prospects and thereby ensure their numbers look good when they eventually appear. This trend has existed ever since the Enron and WorldCom scandals (and the subsequent Sarbanes-Oxley law) and probably relates to the desire of executives to avoid being sued or prosecuted.

It is hard to see how profits can keep growing at a double-digit percentage rate. Cost pressures are increasing, thanks to higher commodity prices and tighter labour markets (American unemployment is at a six-year low). Despite good results so far, HSBC says forecasts for 2007 earnings per share for S&P 500 companies have edged down from $95 in the middle of last year to less than $93 today. And Dave Rosenberg, a Merrill Lynch economist, says that, over the past six months, business sales have fallen at an annual rate of 2.3%.

If business conditions are getting more difficult, a bit of financial engineering will help. Buying back shares with borrowed money boosts earnings per share, so profit growth can continue to look healthy. That was an important driver in the final stages of the 1990s bull market.

In the long run, this is not sustainable. But so far, investors do not seem to have noticed. Slowing profits forecasts have been offset by an increase in the prospective profits multiple on American shares. Corporate borrowing rates are at cyclical lows, increasing the incentive for companies to buy back shares and for private-equity groups to launch takeovers. For as long as that buying spree continues, those who worry about the long-term will look out of touch.

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Spanish property

The pain in Spain

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From The Economist print edition

Signs that a 14-year boom is ending

THE only question in Spain now is which bubble is bursting. Are only overvalued property companies in trouble, or is the country's entire property market going down? For the economy as a whole, in which construction weighs in at a hefty 18%, it could mean the difference between a soft landing and a hard one, after 14 years of a construction-led boom that put Spain near the top of the euro zone's growth league.

In the past week Astroc, a property company based in Valencia, saw its shares fall by 65% in what looked like a response to tighter planning regulations in the region. The worries have spread to other property groups, where shares have tumbled by more than a fifth since April 17th. Having been floated last May, Astroc's shares had risen tenfold before the crash. Share prices of other leading property companies, such as Colonial, Metrovacesa, Fadesa, Urbis and Inmocaral, also soared last year. Worries spread wider into construction stocks such as Ferrovial, Acciona, ACS and Sacyr Vallehermoso, and banks such as Santander and BBVA, knocking the Ibex stockmarket index off by 1.7% in the week up to April 25th. On that day it was partially pepped up by reassuring noises from government officials and bankers.

Helped by low interest rates since it joined the euro in 1999, Spain has been erecting houses at an astonishing rate. Last year it built 800,000, reckoned to be more than France, Germany and Italy combined. Economists in Madrid forecast that the house-building boom will keep slowing until the new-build rate more closely matches the rate of new household formation, around half a million a year. House-price rises are already slowing, albeit not brutally. They peaked at about 18% a year in late 2003, and are now running around 7%, with some expecting them to slow further. Around the outskirts of Madrid there are new property developments where work appears to have stalled. The Bank of Spain has said in recent years that house prices were 35% overvalued.

Ever since the collapse in subprime lending in America there have been fears that the contagion would spread to those European economies, Spain and Ireland, which have been most heavily dependent on property and construction for their recent growth. But Spanish bankers like to point out that their lending conditions are more rigorous than America's. Credit evaluations for mortgage applicants are often methodically carried out using tax returns.

Whatever happens to the Spanish housing market, which is roughly half of the total construction work in Spain, the effect on the big building contractors should be limited by their recent strategies. Firms such as Ferrovial and Acciona have been diversifying into other sectors and markets overseas. Acciona has moved heavily into energy, while Ferrovial has gone into services, buying for instance BAA, owner and operator of London's airports. However, like Spanish homeowners, many of them are up to their necks in debt.

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The yen and the carry trade

Out with a whimper

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Japanese individuals take up where the foreign carry traders left off

TWO months ago, when a sudden burst of volatility broke over the world's financial markets, concern focused on the “carry trade”—the apparently widespread practice of borrowing yen at dirt-cheap interest rates in order to buy higher-yielding assets in America, Australia or even Iceland. The carry trade, analysts and policymakers complained, had driven the yen to unnaturally low levels. Conversely, an all-too-sudden unwinding of carry-trade positions risked destabilising global markets, as everyone rushed for the exits and the yen spiked. At the end of February, such predictions appeared to be coming true: between February 23rd and March 5th, the yen shot up from ¥121 to the dollar to ¥116.

Since then, however—not very much. Most of the world's stockmarkets have gone back to floating happily upwards. Volatility in financial markets has declined. Meanwhile, the yen has drifted back towards ¥119. Curiously, though, the currency's recent slide has taken place without any help from carry traders, whose positions, if anything, are being unwound. It is worth wondering whether the carry trade has been exaggerated.

Admittedly, the size of the market is fiendishly hard to gauge. Earlier this year Hiroshi Watanabe, Japan's deputy finance minister for international affairs, put the trade at $80 billion-160 billion. That the carry trade exists at all is gleaned only indirectly. One clue comes from financing trends among foreign banks in Japan. Whereas loans last year barely grew for Japan's banking sector as a whole, yen financing by foreign banks shot up by ¥7.4 trillion ($64 billion); foreigners are reckoned to be mainly responsible for the carry trade.

Another clue comes from dollar/yen positions in international money markets. As recently as last May these positions, on balance, were long yen, but that changed and in February net short positions reached a record $17.8 billion. Economists at Goldman Sachs in Tokyo reckon that the total size of the yen carry trade is perhaps two to five times the size of money-market transactions, since much of the business is unrecorded, conducted over-the-counter. Assuming the trade's total size to be at the top of the Goldman Sachs range puts the February peak towards the bottom end of Mr Watanabe's estimate.

Since then, however, short yen positions have fallen sharply, to just two-fifths of their peak levels. A great unwinding of the carry trade, in other words, has taken place, but with very little of the predicted turbulence. What is more, a powerful resurgence in the carry trade seems unlikely. For the trade to be tempting to speculators, there must be low levels of volatility and large differentials in short-term interest rates to offset the risk of adverse currency moves. Yet Japanese rates, of 0.5%, look as if they are ineluctably heading up. On April 27th the Bank of Japan (BoJ) will publish its half-yearly outlook, which is expected to be upbeat. The BoJ is eager to “normalise” interest rates, which until a year ago were set at zero to counter deflation. Eisuke Sakakibara, a predecessor of Mr Watanabe's who is now out of government, predicts that the central bank will raise rates to 0.75% as soon as May. Most economists expect a move in the autumn, with another quarter-point rise early next year. Either way, the trend is towards a narrowing of interest-rate differentials, making the carry trade less profitable.

Slowly, attention is likely to shift to a potentially more powerful bunch of market participants: individual Japanese investors. Japanese households have plenty of savings, but for years they have been averse to risk, keeping their savings in low-yielding yen. Now that is changing. These investors are more concerned about long-term yields, and in Japan low long-term rates are unlikely to be much affected by rising short-term ones—ten-year government bonds yield just 1.65% compared with 4.64% for equivalent American treasuries and 5.83% for Australian ones.

This helps to explain a surge in the purchase of foreign securities by individuals, chiefly through investment trusts. Investment-trust buying was ¥12.9 trillion in 2006 (in 2002 there was net selling), bringing their total holdings of foreign securities to ¥45.4 trillion. In addition, retail investors' direct share of Japan's foreign-currency market may be 20-30%, whereas individuals' holdings of foreign currency

exceed foreigners' holdings of Japanese securities. The clue to the yen's future, in other words, lies with the little man.

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Liquidity

Deal or no deal

Apr 26th 2007
From The Economist print edition

A new measure of market health

MOST people agree that financial markets are more liquid these days. But definitions of this liquidity are pretty vague and tend to be based on broad measures of money supply or prices of risky assets, such as emerging-market debt.

In its six-monthly *Financial Stability Report*, the Bank of England attempts to quantify a more common-sense definition, the ease of buying and selling financial assets. By its calculations, markets are extremely liquid at the moment, substantially more so than in the dotcom bubble in the late 1990s.

The Bank uses three measures. The first is the bid-offer spread—the difference between the prices at which market makers are willing to buy and sell securities. The smaller this spread, the more liquid markets have become. The second measure captures the effect of trades on asset prices—in illiquid markets, those who want to deal in size can find that prices move against them. This factor can be quantified as the ratio of price movements to trading volumes; a lower ratio means markets are more liquid.

The final measure is based on the corporate-bond market. Historically, such bonds have offered a higher spread over government securities than would be justified by investors' losses during defaults. This is probably because investors have demanded a premium for owning an illiquid asset. Any shrinking of this premium may suggest markets have become more liquid.

The Bank has combined these measures into a composite ratio. From about 2004 onwards, this ratio moved to a much higher level, suggesting it is now very easy to buy financial assets. Another way of looking at it is to say that the cost of trading is very low.

Why might this be? One obvious possibility is the activity of hedge funds, which turn their portfolios over rapidly, making it easier for other market participants to deal. Hedge-fund assets have grown fast over the past decade and now are at least $1.5 trillion. Another factor may have been that investment banks have devoted more energy and capital to trading in financial markets.

Financial innovation has also helped; the creation of the credit-derivatives markets has encouraged investors to buy corporate bonds, since they can now unbundle the various risks and trade them separately. That has driven down the liquidity premium in the bond market (and pushed yields lower).

This may not be permanent. Liquidity is a self-reinforcing process; investors are more willing to buy an asset they know they can sell easily. But if liquidity suddenly dries up, some investors might end up owning assets they neither want nor can get rid of. That might make a virtuous circle turn vicious.

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Economics prizes

Back to basics

Apr 26th 2007
From The Economist print edition

Harvard's Susan Athey wins the John Bates Clark Medal

AFTER the Nobel Prize, the John Bates Clark Medal is generally regarded as the most prestigious award in economics. Arguably, it is harder to win: to qualify you must be under 40 and work in America, and the Clark Medal is awarded only every two years. Of the 30 winners (Paul Samuelson was the first in 1947; there was no award in 1953), 11 have gone on to be feted in Stockholm.

This year's medallist is Susan Athey, of Harvard University. She is the first woman to win (so far all the Nobels have gone to men). More important, though, is the breadth of Ms Athey's work. At 36, she has already made a mark in several fields: economic theory; applied economics, from auctions and industrial organisation to macroeconomics; and econometrics. “Susan's work on the foundations of economic theory is of fundamental importance,” says Paul Klemperer, a professor at Oxford, “showing economists when they can have confidence in their 'equilibrium' theories and when they can't.”

For example, economists frequently make simplifying assumptions about mathematical form. Most commonly, they may suppose a linear relationship between variables: when one thing goes up, another goes up or down by a fixed amount. That makes results easier to get—but at a cost: often there is no good reason to assume linearity. Ms Athey has shown that strong results can still be obtained even if you assume much less.

Ms Athey's less abstract work includes an analysis of how firms in a cartel can maximise joint profits when they do not know each other's costs. Should they set “rigid” prices and split the market equally, or let the firm with the lowest cost supply most? The latter would be more efficient; the snag is that high-cost firms must have no incentive to pretend that their costs are lower than they are in order to sneak an increase in market share. Often, but depending on technical conditions, rigid pricing pays off. You may imagine, correctly, that all this is mathematically daunting. (Mercifully, Ms Athey provides a summary in plainish language on her homepage.)

Typical of modern economics? Not going by recent Clark awards, such as that to Steven Levitt, of “Freakonomics” fame, in 2003. Ms Athey perhaps represents orthodox theory better than any medallist has for some years. Back to basics, then? Yes, and what basics.

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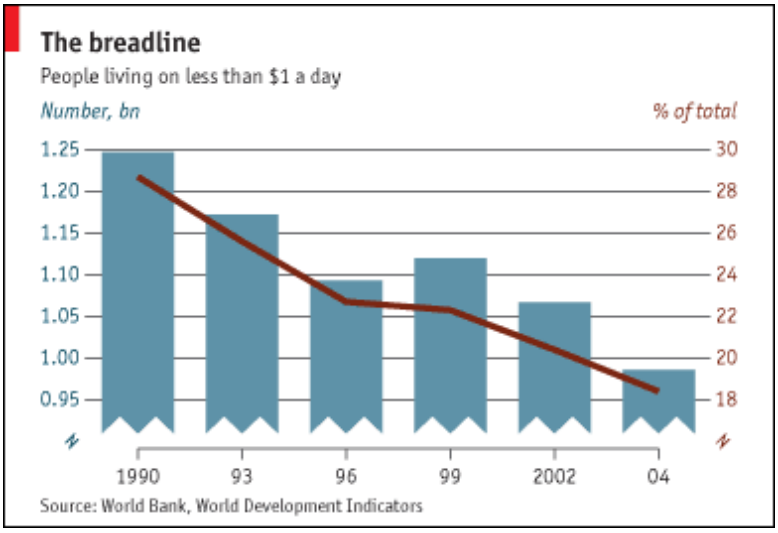
Economics focus

Another day, another $1.08

Apr 26th 2007
From The Economist print edition

Even those in absolute poverty have choices



THIS month the World Bank announced that 986m people lived on the equivalent of less than one dollar a day in 2004—the first time it has counted fewer than 1 billion people in such a parlous state. The bank's definition of extreme poverty is stark, simple and even alliterative. In the latest issue of the *Journal of Economic Perspectives*, Abhijit Banerjee and Esther Duflo, of the Massachusetts Institute of Technology, describe it as a rhetorical masterstroke. But is it also entirely arbitrary? And how do the poor subsist on such a meagre amount?

When the bank decided to count the world's poor for its 1990 *World Development Report*, it did not take it upon itself to define them anew. Instead, a group of economists led by Martin Ravallion gathered together 33 national poverty lines that were already knocking about. India's line, for example, defined the poor as those who ate less than 2,250 calories a day. By its reckoning, this requirement would be met by the typical rural Indian spending 15 rupees a month at 1960-61 prices.

Mr Ravallion and his team converted rupees, pesos and rupiah into a common unit of purchasing power. Someone spending 15 rupees in rural India in 1960 had about the same command over goods and services as an American spending $23.14 a month in 1985. But India's benchmark was unusually abstemious. Half a dozen other poverty lines (for Indonesia, Bangladesh, Nepal, Kenya, Tanzania and Morocco) all fell within a few cents of a more generous allowance of $31 a month.

With that observation, the dollar-a-day concept was born, to appear in countless declarations, laments and pleas ever since. Halving the share of people who live on less than a dollar a day is, for example, the first of the Millennium Development Goals to which 189 countries subscribed in September 2000. (The concept's rhetorical appeal was diminished only a little when Mr Ravallion updated the threshold to $1.08 at 1993 prices, which is worth about $1.53 in today's money.)

Cigarettes and alcohol

But what does this line mean to the people who fall below it? Mr Banerjee and Ms Duflo describe the “economic lives” of the poor, drawing on 13 household surveys from Côte d'Ivoire to Mexico. The two surveys from India—undertaken in Udaipur's farms and Hyderabad's slums—they carried out themselves.

Vikram Seth, an economist before he was a poet, has described the “dreary pillage of privacy” these

surveys entail. In 2001, for example, bank researchers in Timor-Leste diligently recorded whether a household bathed under a shower or in the river; used a flush toilet or a bucket; built their home from brick or rattan, and so forth. They also asked them to recall what they had eaten, drunk, chewed or smoked over the previous week: cassava or shrimp? Mung beans or papaya? Clove cigarettes or betel nuts? Beer or palm wine?

A dollar a day would seem to leave little room for choice or discretion. Hunger is surely the most binding of constraints. And yet these pillages of privacy show that the poor do make choices. They also suggest they are not always the best ones.

The poor do not complain much, the two authors note. (Only 9% of people in their Udaipur survey say their life makes them generally unhappy.) But they have a lot to complain about. Beset by hunger and illness, many are scrawny (65% of adult men in Udaipur are underweight), over half are anaemic, and about a seventh suffer from impaired eyesight. Many had to go without food on at least one day in the previous year.

And yet they do not eat as much as they could. According to Mr Banerjee and Ms Duflo, the typical poor household in Udaipur could spend up to 30% more on food than it does, if only it stopped devoting money to alcohol, tobacco and festivals. That last item, which includes weddings, funerals and religious events, typically accounts for about a tenth of the household's budget. This spending might be motivated by escapism—the poor have a lot to escape—or perhaps by social emulation. Even those in absolute poverty care about their relative standing.

The authors ponder not just how the poor spend their money but also how they make it. They describe the hard-pressed women of the Indian city of Guntur, who line the road each morning, mixing *dosas* over a kerosene stove for the price of a rupee. By 10 o'clock the women have turned their hands variously to making pickles, embroidering saris or collecting rubbish.

The poor, whether smallholders or petty entrepreneurs, lack scale and specialisation, Mr Banerjee and Ms Duflo point out. The farmers of Udaipur cultivate the land they own, no more, no less, but only a fifth rely on their plots as their chief source of income. In West Bengal, a poor household will typically have three breadwinners doing seven occupations between them.

It is almost an “item of faith” among development economists that the poor act rationally, however straitened their circumstances. If their undertakings are too small, or their efforts too thinly spread, to be efficient, it is not because they have miscalculated, but because the markets for land, credit or insurance have failed them. As one economist argued in 1993, “More than 40 years of research...should at last have laid to rest the thought that such folk may not know where their real interests lie.”

But just such a thought is stirring again in the minds of Mr Banerjee and Ms Duflo. Why, for example, do more Ghanaian farmers not cultivate pineapples, which would fetch returns of 250-300% by some estimates? Why do so few farmers in western Kenya dress their fields with fertiliser, even after the benefits have been demonstrated to them?

“One senses a reluctance of poor people to commit themselves psychologically to a project of making more money,” the authors write. When you live on a dollar a day it may be painful to confront your circumstances too squarely, or even to aspire to better things. The “great redeeming feature of poverty,” George Orwell wrote after his excursions in the social gutters of Paris and London, is “the fact that it annihilates the future”.

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Artificial vision

Optical illusion

Apr 26th 2007
From The Economist print edition

A brain implant bypasses the eye and creates the simplest form of vision

The Kobal Collection

RESTORING sight to the blind was once the preserve of miracles. These days it is increasingly the stuff of medical technology. Cloudy lenses, for instance, known as cataracts, are routinely replaced with clear, artificial ones, and many elderly people see all the better for it.

The lens, though, is a simple bit of the eye. Recreating the upper layers of the retina is more difficult. In 2002 six people from Los Angeles had electronic sensors implanted in their retinas that replaced the photoreceptor cells they had lost to a disease called retinitis pigmentosa. Those implants contained 16 electrodes, or pixels, that enable the patients to detect a light source and distinguish simple objects such as cups and plates. Now a trial of a 60-electrode implant is about to begin.

Even more impressive is the idea of restoring sight to people who have lost their eyes. This is an ambition held by John Pezaris and Clay Reid of Harvard Medical School. It is a long way from being realised. Nonetheless, as they describe in this week's *Proceedings of the National Academy of Sciences*, the two researchers have shown how to do it—for a single pixel and in monkeys.

In normal sight the eye relays coded impulses to the brain. Hence, in artificial sight, scientists can bypass the eye altogether and go straight to the business end of vision.

The brain is as complicated as organs get so, to keep the task simple, Dr Pezaris and Dr Reid fiddled with a region called the lateral geniculate nucleus (LGN), which receives coded impulses and shifts them on to other regions for processing. At the LGN stage of the brain's visual pathway, the function of every nerve cell is largely determined by anatomical position. In other words, its nerve cells are arranged as a map of the retina.

Specifically stimulating

Dr Pezaris and Dr Reid inserted tiny electrodes into the LGNs of two monkeys. These allowed nerve cells in those areas of the brain to be activated by the researchers, as though the impulse had come from a part of the retina.

First Dr Pezaris and Dr Reid ran an experiment ignoring the electrodes. It measured the monkeys' tendency to focus on objects of interest. One at a time, the two monkeys sat in a dark room in front of a computer screen. As would any primate in an inquisitive mood, they tended to move their eyes rapidly to look straight at a dot of light whenever one flashed up at a random position on the screen, so that the light impinged on the most sensitive part of the retina. By the time the monkeys stared directly at the

light, it had been extinguished.

Measuring how accurately the monkeys could move their eyes in the direction of the flash gave the researchers data that could serve as a baseline in their next experiment. This time flashes appeared on the computer screen just as before but the odd one was missed out at random. In its place an electrode briefly excited nerve cells in the monkeys' LGNs. Knowing which part of the LGN they had activated, Dr Pezaris and Dr Reid knew which position on the computer screen the monkey would have perceived a flash as having come from. The artificial twinkles seemed to make no difference. Both monkeys moved their eyes as accurately and rapidly in response to the imagined flashes as they had done to the real ones.

To check the electrode impulses were not themselves causing the eyes to move (because the LGN is also involved in orienting the eyes), Dr Pezaris and Dr Reid paired computer-screen flashes extremely close together in time, and also showed a true screen flash just before a fake one. Had the electrodes directly spurred eye movements (rather than that movement responding to where the brain had processed the flash as coming from) the eyes would have moved between the flashes but confused the order of the real and the artificial flash. They did not.

Dr Pezaris and Dr Reid believe their proof of concept will eventually be developed into a wireless device with many electrodes touching different parts of the LGN at the same time. That implant could receive a signal from spectacles containing a digital camera. Thus, in the future, someone who had lost his eyes could see using a camera. For this, of course, a hundred or more pixels would probably be needed. Still, one is a start.

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Dying bees

Buzz off

Apr 26th 2007
From The Economist print edition

Investigating colony collapse disorder

IT IS a mystery that would tax the minds of the world's greatest detectives. Across America beekeepers are finding hives abandoned. What appear to be normal, healthy adults suddenly disappear within two days, leaving their queen, their food stores and the young. In the past, a mass exodus would leave the hive to be ransacked by honeybees from neighbouring colonies. This time, not only is the retreat more common, but nearby bees seem strangely reluctant to enter the abandoned hives. There are no dead bodies, but scientists who have studied the corpses of the occasional remaining live adult report that they are ravaged by disease.

What could be going on? The Department of Agriculture in America this week convened a workshop of apiarists and federal and university scientists to suggest some answers.

Colony collapse disorder, as the phenomenon has become known as, was first reported in America in mid-November 2006. It spread rapidly, with beekeepers reporting heavy losses of between 30% and 90% of bees. Some 24 American states have now reported cases of colony collapse disorder. It has also been seen in Greece, Italy, Poland, Portugal and Spain.

Because the living bees that the scientists were able to study carried almost every virus and parasite known to infect honeybees, researchers are working on the idea that the insects' immune systems have failed. Reducing the body's ability to fight disease allows infection by a host of pathogens. But exactly why this should happen is unclear. It could be that one disease, perhaps a new type of lurgy, invites the others to infect the bee, or that a pesticide performs this role.

The researchers interviewed beekeepers to see if some practices were more likely to lead to colony collapse. Initially they found that beekeepers who frequently moved their hives were more likely to be afflicted.

This may point to an economic factor. Honey production is worth just $200m a year, but bees pollinate $15 billion-worth of fruit, vegetables and nuts, especially the $2 billion almond business. As the production of almonds has grown, the prices that the beekeepers can charge for their pollination services have increased. This has given them a reason to move their bees further and more frequently. Perhaps this constant moving is stressful for the bees and so depresses their immune systems. And yet, simply moving the colonies cannot fully explain the disorder, because it has also been seen in bees that are not moved around.

The interviewers were able to eliminate some suspects from their inquiries. It makes no difference what the bees eat, what chemicals apiarists use to prevent disease in the hives, whether the bees are for pollinating or for making honey, or where the queens came from. A recent suggestion that mobile phones may play a part has also been dismissed.

The genome of the honeybee is yielding some clues. Researchers have compared it with that of other insects, including the fruit fly and the mosquito. They have found that bees cannot make an enzyme that other insects use to help eliminate toxins from the body. This could leave bees at risk of poisoning.

One intriguing possibility draws on the social nature of bees. Previous studies have shown that losing a few key workers can destroy an insect society. It may be that the solution to this particular mystery lies, as it often does in the human world, in social interactions. Scientific sleuths will be examining how certain key worker bees may have been targeted as part of their ongoing inquiries.

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Medicinal use of honey

Sticky solution

Apr 26th 2007
From The Economist print edition

Honey may help in the battle against superbugs

HOSPITALS do more than house sick patients while they are treated. They also provide convenient havens for dangerous bacteria. Cramming infirm people into one place creates the ideal breeding ground for disease. Add a sprinkling of antibiotics and drug-resistant strains emerge—the superbugs that are endemic in many places. One doctor, however, thinks he has rediscovered an old weapon that could be useful in the fight against these nasties. It is honey.

Honey was commonly used in medicine before antibiotics became widespread. It is still used in the Antipodes; an Australian company makes a product called Medihoney for medicinal use. This formulation is a certified medicine in Europe, but has not been much used there because doctors developed a taste for prescribing conventional antibiotics.

Arne Simon of Bonn University Children's Clinic in Germany is now leading an international study to compare honey with existing drugs. The investigation will involve 150 patients in several countries including Britain, Germany and Australia.

Dr Simon has already used honey on 150 patients who were not responding to treatment, with some promising results. The patients were often children whose immune systems had been weakened by chemotherapy, which left their wounds from surgery vulnerable to infection. Around a third of them were also given some antibiotics at the same time as having their wounds dressed with honey. One patient, whose wounds had become infected by the potentially fatal strain of *Staphylococcus aureus* that is resistant to the antibiotic methicillin (MRSA), and who failed to respond to other drugs, was free of this superbug within 48 hours of receiving the honey treatment.

Research in Australia and New Zealand suggests that honey heals because it attacks bacteria in several different ways at once. Because honey is composed of saturated sugars, it sucks up water, depriving bacteria of the liquid they need to survive and multiply. As bees make honey they secrete glucoseoxidase, an enzyme that releases the bleach hydrogen peroxide when it comes into contact with wound liquids. The low-level but frequent release of this chemical ensures regular anti-bacterial washes of the wound.

Although honey is not about to usurp antibiotics, Dr Simon thinks it should be brought back into conventional medicine—and not only to sugar the pill.

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Evolution of mind

Thought for food

Apr 26th 2007
From The Economist print edition

Birds have shown they can plan for a future state of mind

HOARDING provisions for future use is not unique to humans. Birds, squirrels and monkeys do it. But the ability to think not just about tomorrow, but to realise how tomorrow's feelings might differ from today's, was thought to be the preserve of people. This week researchers demonstrated that Western scrub-jays, a type of crow, can do it too.

The researchers, led by Nicky Clayton of the University of Cambridge, wanted to test an idea proposed by Wolfgang Köhler, Norbert Bischof and Doris Bischof-Köhler, three German psychologists. The Bischof-Köhler hypothesis says that only humans can mentally separate themselves from what they are experiencing to envisage how they might feel about future events.

To test whether this is so, Dr Clayton and her colleagues sought to tease apart scrub-jays' momentary desires from their planning for future needs. They let the birds eat as much of one food as they wanted, exploiting a condition called specific satiety—once the birds are full of one food, they show strong preference for something different. They then offered the birds that same food or a second one to store for later.

Initially the scrub-jays behaved as predicted, choosing to stow away the second food, which they had not just eaten. But minutes before allowing the birds to recover their stash, the researchers fed the birds to satiety with that second food—the one they had already stored. The birds changed their caching preferences on the very next trial. Even though they had just had their fill of the first food, they still cached it, presumably because they thought it would be their preferred choice later. The results are published in this week's *Current Biology*.

The finding matters because the birds seem to plan ahead for what they will want later, even though their choice conflicts with what they want now. It could prompt a reassessment of how animals perceive the world around them. Without the benefit of experimental subjects who can explain their thinking, however, Dr Clayton and her colleagues will have to develop ever more cunning experiments to infer complex mental processes from simple behaviour.

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Exoplanetary science

Sister Earth

Apr 26th 2007
From The Economist print edition

Astronomers detect the first Earth-like planet outside the solar system

IF EXTRATERRESTRIAL life were to exist, it would need a planet on which to evolve. All but one of 200-or-so planets outside the solar system that have so far been discovered by astronomers would be quite unsuitable. That is because they are composed of gas. Yet the one whose discovery was announced this week is different. Astronomers think it is rocky, like the Earth, and that it may harbour liquid water. This makes it the best candidate yet for supporting life.

The new planet orbits a star, called Gliese 581, that lies a mere 20 light years away in the constellation Libra. The temperature of the sun is such that it supports a nuclear-fusion reaction that generates bright sunlight. By contrast, Gliese 581 is a red dwarf, so-called because the star is small and the fusion reaction proceeds slowly, creating a dim glow. Nevertheless, because the new planet is much closer to its star than the Earth is to the sun, it lies in what astronomers call the “habitable zone”—the space surrounding a star where water would be in its liquid form.

Seeing remote planets is difficult. Astronomers used to detect them indirectly, by spotting a small wobble in the position of the star, which indicated that it was being pulled very slightly to and fro by an orbiting planet. New telescopes and techniques have found other planets outside the solar system—so-called “exoplanets”—directly, from the slight dip in the luminosity of the star as the planet crosses its face. But these techniques work only with giant planets and, in general, giant planets are gaseous.

Looking for planets orbiting red dwarfs is easier because the stars are less massive. This not only means that any planets are likely to circle it more closely (to remain in orbit) but also that the wobbles are more readily seen. The researchers—led by Stéphane Udry of the University of Geneva—used an indirect method called the “radial velocity” technique. This exploits the Doppler effect—familiar when a siren changes pitch as a fire engine passes you—to reveal changes in the velocity of the star as it wobbles. This is sensitive because it is easier to measure small changes in the wavelength of light than luminosity.

The new planet, dubbed Gliese 581c, is more than three times the size of the Earth. It has five times the mass of this planet and orbits its star every 13 days. The astronomers who discovered it had earlier found another planet, a gaseous giant similar to Neptune, orbiting the same star every 5.4 days. They say they have strong evidence for a third planet in the same system that has about eight times the mass of the Earth and orbits every 84 days. The evidence is reported in a paper submitted to *Astronomy and Astrophysics*.

According to theory, a planet the size and mass of Gliese 581c should be rocky, like the Earth. It could be covered in oceans, perhaps completely. The mean temperature on the surface of the planet is thought to be between 0°C and 40°C, making it far more hospitable than either Venus or Mars, Earth's nearest neighbours.

The race is now on to detect whether the planet has an atmosphere and whether it contains water. Just a fortnight ago, astronomers using the *Hubble* space telescope identified for the first time water vapour in the atmosphere of an exoplanet, albeit a gaseous one some 150 light years away. The planet, called HD209458b, shows its face to Earth every three-and-a-half days, giving plenty of chances to take measurements. If water exists on Gliese 581c, detecting it there will be far harder.

Even if Gliese 581c is not yet inhabited by little green men, there is plenty of time for that to change. The Earth gets its warmth from a sun that is thought to be about 5 billion years old and halfway through its lifetime as a “main sequence” star. After that it is expected to become a red giant, at which time the Earth's atmosphere and water will be boiled away, leaving it uninhabitable.

Red dwarfs, by contrast, burn for hundreds of billions of years. This not only gives plenty of time for life to evolve on the recently discovered planet. It may make Gliese 518c a useful bolthole in some 5 billion

years' time.

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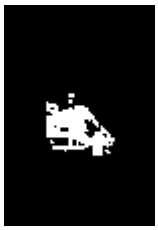
Joseph Schumpeter

In praise of entrepreneurs

Apr 26th 2007
From The Economist print edition

The biography of a man who believed that uproar was the music of capitalism

Prophet of Innovation: Joseph Schumpeter and Creative Destruction
By Thomas K. McCraw



Belknap Press; 719 pages; $35 and £22.95

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Harvard University Archives

MUCH honoured as an economic prophet, Joseph Schumpeter has had to wait half a century after his death for this splendid full-dress biography covering his ideas, life and times. In 1983 *Forbes* pronounced him a better guide to the tumultuous world economy than John Maynard Keynes. In 1986 J.K. Galbraith described him as “the most sophisticated conservative of this century”. In 2000 *Business Week* ran an article about him to which it gave the title “America's hottest economist died fifty years ago”. There are Schumpeter lectures, Schumpeter societies and Schumpeter prizes.

Now he has received yet another accolade: a fat, learned biography by Thomas McCraw, one of America's most respected business historians, the author of a Pulitzer prize-winning history of the rise of regulation. He has found the perfect subject in Schumpeter. He succeeds in getting inside the economist's head, explaining not just what he thought but why he thought it. Beyond this, he also succeeds in painting a portrait of his times. *Fin de siècle* Vienna, Weimar Germany, Harvard University (where he is seen in our photograph) before and after the first world war: all come to life on these pages.

Most economists live pretty dull lives, dividing their time between technical intellectual problems and tedious academic politics. Even Keynes inhabited a comfortable Bloomsbury cocoon. Schumpeter was anything but dull.

He was a self-made man who put on the airs of an aristocrat: he spent an hour getting dressed every morning, frequently appearing in jodhpurs. He was also a notorious womaniser. He liked to regale his colleagues with stories of “orgies” and “advanced sexual techniques” (Mr McCraw is sadly incurious about this side of his life).

By his mid-50s he had lived in nine cities and five countries. He was Austria's finance minister for a time, and witnessed the collapse of the Habsburg Empire from close quarters. He taught in Germany when it was succumbing to the Nazi temptation. He was one of the first of the great European émigrés to the United States. Daniel Bell, a liberal sociologist, described him as that rarest of creatures: an economist with a tragic sense of life.

Schumpeter is best remembered today for “Capitalism, Socialism and Democracy”, published in 1942. This was a firecracker of a book that challenged wartime conventional wisdom on every front: praising giant companies as the engines of progress; giving warning of the rise of a “new class” of anti-capitalist government employees; worrying that risk-aversion might lead to the triumph of socialism.

Mr McCraw is illuminating on Schumpeter's less well-known books. His work on business cycles is little read today because the idea at its heart has not stood up to scrutiny. But the book also contains a fascinating account of the engine of capitalism: the corporation. His history of economics is both learned and idiosyncratic. It is less Anglocentric than most histories of this sort and more critical of such giants as Adam Smith and Keynes.

Schumpeter's two greatest insights were that innovation is the driving force not only of capitalism but also of economic progress in general, and that entrepreneurs are the agents of innovation. Entrepreneurs are possessed by “the dream and the will to found a private kingdom”. But they are confronted with all sorts of obstacles. Innovation is hard to produce and harder to sustain: all successful businessmen stand on ground that is “crumbling beneath their feet”. And of course it produces losers as well as winners.

Inequality and turbulence, in Schumpeter's view, are a small price to pay for material progress. “The capitalist achievement does not typically consist in providing more silk stockings for queens”, he once wrote, “but in bringing them within the reach of factory girls in return for steadily decreasing amounts of effort.” He nevertheless recognised the danger of a populist backlash.

Schumpeter does not quite stand comparison with Keynes. He did not produce a single elegant theory—his sense of history kept getting in the way—and he did not write as well as the sage of Bloomsbury (who does?). But *Forbes* was right that his work, with its recognition that uproar is the music of capitalism, is the more relevant today. If you want proof of Schumpeter's enduring genius, look around you.

Prophet of Innovation: Joseph Schumpeter and Creative Destruction.
By Thomas K. McCraw.
Belknap Press; 719 pages; $35 and £22.95

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Insurgents v armies

The tale of three men called George

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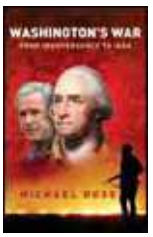
From The Economist print edition

WHEN Khalid Sheikh Mohammed, a mastermind of the September 11th 2001 terrorist attacks, appeared before a military tribunal at Guantánamo Bay in March, he justified the atrocity by drawing a simple parallel with American history. George Washington, he said, was just like Osama bin Laden: the former fought for independence from British oppression; the latter seeks to rid the Muslim world of American oppression. The same argument has now been put forward by Sir Michael Rose, a retired British general who, as a commander of special forces and of UN peacekeepers, knows a thing or two about fighting terrorists and insurgents.

Washington's War: From Independence to Iraq
By Michael Rose



Weidenfeld & Nicolson; 212 pages; £14.99

Buy it at
Amazon.co.uk

With America's allies saying the same thing as its enemies, it may be time to think again. General Rose's book is about three men called George: Britain's King George III, George Washington, the commander of America's rebel army, and President George Bush. According to the author, Mr Bush has been every bit as arrogant, ignorant, misguided and ill-advised as was George III. Britain, then the world's greatest power, was defeated by the American “insurgents”; in a similar way, America will be defeated in Iraq.

Like King George and his advisers, Mr Bush and his lieutenants misunderstood the nature of the problem facing them in Iraq and underestimated its scale. Both imperial Britain and modern America failed to commit enough troops early on. Nor could they resolve the dilemmas of counter-insurgency: how to wage military action without alienating the local population; and how to isolate the insurgents.

He compares Britain's former mastery of the seas with America's mastery of the air and George Washington's harrying tactics with ambushes of American supply convoys in Iraq. He also finds similarities between Washington's loss of New York in 1776 and Saddam Hussein's loss of Baghdad. He casts Iran in France's 18th-century role as the vital ally of the insurgents.

His parallels are not all gloomy. Though he believes that America has no choice but to get out of Iraq, he suggests that this “may not necessarily be the doomsday scenario that those opposing it suggest”. After all, as he says, Britain recovered sufficiently after the loss of the American colonies to help defeat Napoleon and ensure the survival of its global empire for more than a century thereafter.

The intellectual parlour game is absorbing. The trouble is that General Rose never varies the entertainment. Why not play “spot the difference” on occasion? Yes, Iraqis may dislike foreign occupation as much as the American rebels turned against royal misrule and, yes, American rebels fought against American loyalists. But there was nothing in revolutionary America akin to the sectarian violence that is spilling rivers of blood in Iraq. There is no centrally commanded rebel army in Iraq. And who, pray, can claim to be the George Washington of Iraq?

The book flicks back and forth between the centuries, with neither set of events described all that well. General Rose has been strict with himself over the number of pages; perhaps as a result he fails to explain the political and social causes that led to the wars in America and Iraq, or to provide a coherent narrative of either conflict. This is a pity. Interesting as his thesis is, he too often commits the same mistake he attributes to Mr Bush: shoehorning reality into pre-conceived theory.

Washington's War: From Independence to Iraq.
By Michael Rose.
Weidenfeld & Nicolson; 212 pages; £14.99

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Budget busting

Boom and doom

Apr 26th 2007
From The Economist print edition

CHRISTOPHER BUCKLEY has taken a dull subject—the budget crunch that will occur when America's baby-boom generation retires—and made it funny. The boomers have voted themselves impossibly generous pension and health-care benefits that will have to be paid for by younger taxpayers. Since young people are, on average, much less wealthy than the old, this strikes many of them as unfair. In Mr Buckley's latest Washington satire, they do something about it.

Boomsday
By Christopher Buckley

Twelve Books; 318 pages; $24.99

Buy it at
Amazon.com
Amazon.co.uk

Cassandra, the heroine, has had enough of her selfish elders. As a teenager, she got into Yale, but found her father had spent her college fund on his dotcom start-up. So she joins the army, which pays college fees if you serve long enough. Stationed in Bosnia, she is given the job of showing around a visiting congressman, who takes the wheel of her Humvee and drives it drunkenly into a minefield. They survive the explosion, but the army is so embarrassed by the inevitable speculation that the two were having sex that Cassandra is discharged. So she never goes to Yale.

Instead, she ends up working for a dodgy public-relations firm, representing mink ranchers, porn shops and the North Korean government. At night, strung out on Red Bull, she blogs about fiscal responsibility. The United States is so indebted that foreigners are refusing to lend it any more money. Inflation is exploding. Congress responds by raising taxes on the under-35s but not the retirement age. The Association of Baby Boomer Advocates (ABBA) demands ever more good things: subsidies for Botox and motorised scooters for those too lazy to walk. On her blog, Cassandra calls for “actions against gated communities known to harbour early-retiring Boomers”. Riots erupt on golf courses in Florida. Suddenly, the issue is front-page news.

Cassandra becomes the icon of a new youthful rebellion. She urges her contemporaries to stop paying taxes. She offers a Swiftian modest proposal: that old people should be given financial incentives to kill themselves, thereby reducing the financial burden they impose on everyone else. At this point the plot turns amusingly absurd.

Mr Buckley's writing has several virtues. He is witty. A boomer himself, he observes that his generation has “gone from ‘Don't trust anyone over thirty' to ‘Don't drink any Scotch under thirty.'” He creates vivid caricatures, such as Gideon Payne, the right-to-life zealot who argues most forcefully against Cassandra's modest proposal. He is also the founder of the Society for the Protection of Every Ribonucleic Molecule (SPERM) and is widely suspected of having killed his own mother.

Slapstick is orchestrated with brio. The scene where the Reverend Payne gets drunk and calls an escort service on a papal emissary's telephone is particularly colourful. And Mr Buckley uses swear-words judiciously. A senator running for president is advised to woo young voters by letting the word “fuck” slip accidentally-on-purpose from his lips. He waits until a live televised debate. After the sitting president has delivered a tedious monologue about economic indicators, the senator says: “I can respond to what the president said in four words: shut the fuck up.” Naturally, this goes down well with the young, who start wearing badges with “STFU” on them.

All in all, Boomsday is a splendid romp. And if America's real-life budget Cassandras pinch some of the author's jokes, who knows? Maybe someone will listen to them. At least, until they start droning on about those boring numbers again.

Boomsday.
By Christopher Buckley.
Twelve Books; 318 pages; $24.99

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Thirteenth-century history

In and out of court

Apr 26th 2007
From The Economist print edition

TO GET an idea of Nancy Goldstone's book, think of chess, multi-dimensional chess. It is about Europe in the 13th century. On one side is Henry III, son of John (Magna Carta), struggling with uppity barons and hankering after bits of France. Opposite is Louis VIII, then Louis IX, manoeuvring to expand their Frankish kingdom. On a third side are the holy Roman emperors (neither holy nor Roman, explains Ms Goldstone), rulers of Germany and Sicily and busy invading Italy where, on a fourth side, sit successive popes. On other sides (well, we said it's complicated chess) are all the petty kings and dukes, owing fealty, swapping sides, hawking their offspring in marriages of alliance and trying not to get swallowed up. Throw in the last of the crusades, and you have the beginnings.

Four Queens: The Provençal Sisters Who Ruled Europe
By Nancy Goldstone

Viking; 336 pages; $24.95

Buy it at
Amazon.com
Amazon.co.uk

Ms Goldstone finds a thread through all this in the careers of four women, the daughters of a minor king, Raymond of Provence, and his wife, Beatrice of Savoy. These two, together with Beatrice's powerful Savoyard brothers, were canny operators. Between them they married all four girls into the royal families of France and England: Marguerite, the eldest, to Louis IX; the next, Eleanor, to Henry III; and Sanchia and Beatrice to brothers of these monarchs: Richard of Cornwall and Charles of Anjou. Not to be outdone, each brother then went on to become a king himself, of Germany and Sicily respectively, the Holy Roman Empire having by then been split.

Initially, these women—children really, brides of 12, 13 and 16—were merely pawns in the larger geopolitical game. But once they became the mothers of sons, they soon matched, and overmatched, their husbands. Marguerite accompanied her husband on his disastrous first crusade, and shrewdly avoided his second; Eleanor and her uncles dominated Henry III's court; Beatrice personally raised the funds for her husband's invasion of Sicily. Only Sanchia stayed in the background.

In fact it wasn't so much the husbands they had to watch as each other and their mothers-in-law. The book is full of political women, including Isabella of Angoulême, the mother of Henry III, who threw all the pots and pans out of the window after a feast at which she had been forced to give precedence to an inferior. Ms Goldstone is always good on the theatricality of the age, the language of ceremony and spectacle, gifts and feasts. She is alert to the calculation in a silk cloak, the spin in a street hung with tapestries and the collateral in jewels.

She is good too at keeping her story clear and fast (though Shakespeare in two and half minutes sometimes comes to mind). She steers her readers deftly from court to court, nudging us, like a good hostess, with names and connections as she goes, and lightening the informational load with dry humour. When Damietta in Egypt falls easily to Louis IX's crusading army, it was “only a matter of singing a Te Deum”, she says, and the place was “captured for France and the Church in a single morning”.

With so much war and diplomacy to cover, it seems churlish to wish that she might have paused a bit longer over certain ideas: for example, the mindset behind Louis IX's attempt at holy politics. But then it would have been a different kind of book.

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By Nancy Goldstone.
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Impotence

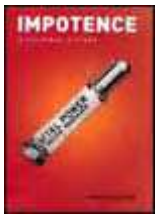
Saved by the pill

Apr 26th 2007
From The Economist print edition

IS IT life's greatest tragedy, its greatest joke, a disease or just bad luck? Impotence, along with its causes and remedies, has been bothering people since the dawn of medicine, literature and art. As Angus McLaren's comprehensive survey shows, the way people treat impotence says a lot about their attitudes to other things: the desirability of sex, masculinity and its obligations, and the bumpy progress of science towards a roughly accurate understanding of coitus and its causes.

From classical times onwards, the crucial link was between sexual potency and virility, rather than reproduction or pleasure. The failure of the male erection was seen as a shameful lapse, regardless of the purpose to which it might have been put. Christianity, which became increasingly sex-shy from St Augustine onwards, changed the focus. Celibate clerics made themselves experts on the minutiae of sexual dysfunction: without the right kind of sex, a marriage was invalid. Impotence was ultimately a theological question.

Impotence: A Cultural History
By Angus McLaren



University of Chicago Press; 352 pages; $30

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The bawdy Middle Ages, as Mr McLaren explains in his admirably deadpan prose, “once again made impotence a laughing matter”. The Enlightenment saw it as a subject of intellectual enquiry, and groped towards the notion of different female and male sexualities. That in turn gave way to Victorian prudery, together with a determined focus on the need for manliness in marriage. Coy and euphemistic by today's standards, Victorian marriage manuals were the first widely available books to try to unlock the secrets of the body's sex drive.

In the modern era Mr McLaren changes gear, highlighting three approaches to impotence: Freud, feminism and pharmacology. Is impotence the result of Oedipal guilt? Is it fair to blame a pushy woman for her husband's impotence? In what sense can a little blue pill “treat” the “disease” of impotence? Every age, he argues, has turned impotence to its own purposes, “each advancing a model of masculinity that informed men if they were sexual successes, and if not, why not?”

Proper male sexual performance—how long, how often, in what circumstances—is now a demandingly calibrated affair. Women used to fake orgasms; Viagra and other pills now give men pretty much the same means to simulate sexual satisfaction that they do not feel but feel obliged to indicate. Today's standards, partly influenced by the pervasive influence of pornography, may be wildly unrealistic, but that leaves plenty of lucrative scope for the pharmaceutical industry.

Reading a scrupulously scholarly work about something as intimate as sex risks being unsatisfying. Words like “love”, “tenderness”, “romance” and “passion” appear seldom, if at all. The reader gets the impression that Mr McLaren may be embarrassed by such soppiness. But the effect is rather like reading a book about music written by someone who knows everything about the history of acoustic physics and the construction of musical instruments, but has little regard for the beautiful noises that people actually hear.

Impotence: A Cultural History.
By Angus McLaren.
University of Chicago Press; 352 pages; $30

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Sacred texts

Life-giving letters

Apr 26th 2007
From The Economist print edition

Some of the questions raised by an exhibition of holy texts and icons

WHATEVER else may divide Jews, Christians and Muslims, they can claim a common heritage as People of the Book. Not only do all three faiths ascribe overwhelming importance to a set of divinely inspired writings, but the content of these writings overlaps. This is the sort of remark that is often made in the course of emollient, inter-religious dialogue, and it is in this spirit that the British Library has mounted an exhibition with the title “Sacred: Discover What We Share”.

What the show stresses, however, is not commonality but variety. Entering the exhibition, the visitor steps into a cubical area that is partially enclosed by diaphanous material. Inside this space, open copies of the Hebrew scriptures, the Christian Bible and the Koran are displayed side by side. Moving on, the public is invited to consider the differences that exist not just between the monotheistic traditions but within them.

The objects used to display this variety are stunning: they include the Codex London, a 9th-century manuscript of the Torah; the Codex Sinaiticus, which is the oldest complete New Testament; and a curtain which once covered the door into the Ka'abah in Mecca. There is great emphasis on the way calligraphic and book-making techniques migrated between faiths: Christian Bibles made in Arab lands draw on “Islamic” artistic methods and Jewish manuscripts made in Europe reflect their “Christian” context.

But here is a paradox: this emphasis on interchange and diversity is almost the opposite of the single-minded awe with which believers in each faith approach their own sacred texts. In any liturgical encounter with the word of God, there is concentration, not diffusion. The sublime has been encapsulated in a fixed set of words—and that particular combination is neither negotiable nor mutable.

The absolute unchangeability of the words of sacred text is especially emphasised in Islam, which believes that the Koran was delivered to the Prophet Muhammad by an angel. But the New Testament's closing lines also contain a stern warning against tinkering: “If any man shall take away from the words of the book of this prophecy, God shall take away his part out of the book of life.” And Jewish traditions about the formation of the Torah have no time for the multiple authorship or prose styles which modern interpreters spend years trying to dissect. The first five books of the Old Testament were revealed to Moses all at once, the story goes.

Secular scholarship, of course, sees things differently. In an essay accompanying the catalogue of this exhibition, F.E. Peters makes an assertion that could not be made in any Muslim-majority land: that the precise form of the Koran was probably not fixed for the first two centuries after Islam's emergence.

How, then, are we supposed to reconcile the “singularity” experienced by a believer who reads the word of God and the multiplicity of influences which historians can trace in the Abrahamic texts, let alone the changing way in which they were presented and received? This is one of the puzzles that may occur to visitors to the exhibition.

There are others. As well as texts, the show presents us with several other kinds of holy object, most of them Christian: chalices, censers, crosses—and an icon that celebrates the church's decision to allow icon painting. The monotheistic religions have argued bitterly, with one another and between themselves, over the different ways of depicting holiness. The objects on show suggest at least part of the answer: the word (spoken or written) and representational art do not belong in hermetically sealed boxes. They overlap in many ways.

Start with the fact that some of the most famous Christian icons depict either Jesus or another holy person brandishing a book; then consider the illuminated manuscript, a technique which self-consciously

combines pictures and writing. Islam is often seen as a religion which substitutes writing for images; but that is not completely true—the exhibition includes a famous Persian miniature of the Prophet Muhammad's journey to heaven.

Once it is understood that “icon” and “text” are in fact overlapping concepts, it may become easier to tackle some of the other questions about how to read sacred writing. As the wisest religious minds have always sensed, the most sophisticated way to understand a holy text is precisely to see it “iconically”—as a multi-layered repository of truth whose meanings, like so many layers of paint, will reveal themselves only gradually; and which will speak to people in different ways.

We are living through an age when insistence on the literal truth of sacred texts (which zealots assume to be self-evident, and exclusive of all other truths) ranks high among the causes of conflict in the world. St Paul's adage that the “letter kills, but the spirit gives life” has never been more true. But when it is understood properly, the letter can also give life.

“Sacred: Discover What We Share” is at the British Library, London, until September 23rd.

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Boris Yeltsin

Apr 26th 2007
From The Economist print edition

Boris Yeltsin, Russia's first president, died on April 23rd, aged 76

Reuters

HE was almost dead when his mother scooped him out of the baptismal font in a small village in the Urals. The local priest, plied with liquor all morning by happy parents, had dunked the baby in the water and forgotten him. The boy survived and was christened Boris, a fighter.

The story may be legend, but survival against the odds was a constant in Boris Yeltsin's life. He nearly killed himself dismantling a grenade; he played cards with criminals on the roofs of speeding trains; he almost lost his life to diehard Communists. But like some character from a Russian fairy tale, he always came through.

He survived, too, the Soviet experiment that hoped to create a new man and to root out everything human and natural. Moreover, it fell to him to end this experiment and the system that lay behind it. Though Mr Yeltsin was a Communist Party boss, he never turned into *Homo sovieticus*; he preserved the qualities and sensibilities of a Russian man. As Alexander Solzhenitsyn put it, he was almost too Russian. He was spontaneous, erratic, frequently drunk, talented, sincere, witty, full-hearted. His hugeness as a character matched the scale of the changes in his country.

Mr Yeltsin thrived on crises, seeming bored when things were normal. Gut instinct, rather than reason, guided him. He had profound faith in Russia and tried to encourage its best impulses; but he also knew its darker side, for his personal history was his country's. Under Stalin's collectivisation his grandfather was pronounced a kulak—a rich peasant—stripped of his possessions and sentenced to forced labour. His father spent three years in the gulag, a fact which Mr Yeltsin concealed for over 30 years. The family was driven off its land and into barracks where a goat was the only source of heat. There he grew up with 20 other families, one to each room and with a single lavatory.

He believed in freedom and rejected communism not because he was a libertarian, but because he felt freedom was part of human nature. His hatred of Stalinism was instinctive, not intellectual. He cursed fascism and Stalinism in the same breath, without putting so much as a comma between them.

When Mikhail Gorbachev, then the Soviet president, launched *perestroika* and *glasnost* in the mid-1980s, Mr Yeltsin—then the party boss in Moscow—embraced them wholeheartedly. But Mr Gorbachev wanted gradual reform. Mr Yeltsin had less patience. Sensing early that the system was doomed, he broke with the Soviet power structure in 1987, publicly criticised Mr Gorbachev, was disgraced and fired. Four years later, to everyone's astonishment, he stormed back—this time as the first democratically elected president of Russia, then still one of 15 Soviet republics.

One picture captivated the world: Mr Yeltsin on top of a tank, opposing the communist coup in 1991,

charismatic, brave, defiant. Later there would be darker images: a bloated, inebriated figure who grabbed a conductor's baton at a public ceremony in Berlin, or goosed the ladies at state receptions. But in August 1991 Russia rallied behind its president. People loved Yeltsin like no other Russian leader—without fear. They would hate him too, when times got tough, without fear. They took him personally, for he was one of them.

Breaking communism's neck

The country he inherited had few features of a state: no functioning institutions, no money, no food in the shops and, worst of all, a brainwashed people. He surrounded himself with young reformers, half his age and with twice his knowledge, who began to dismantle a planned economy that was rotten to the core.

For millions of Russians, it seemed that Mr Yeltsin's liberalisation of prices in 1992—not the bankruptcy of the Soviet Union—had plunged them into poverty. He refused to back off. Unlike Mr Gorbachev, he did not want to reform the communist system. He wanted to break its neck. His mass privatisation, which destroyed the basis of the regime, created robber barons too, and a communist backlash was never far away. In 1993 armed communists and fascists tried to overthrow Mr Yeltsin's government; he shelled the hostile parliament. In 1996 communists almost won the presidential elections; by twisting the rules, he saved himself and his country.

Civil war and hunger were averted, but Mr Yeltsin's compromises allowed authoritarianism to revive. He missed his chance to dismantle the KGB, and let corruption and nepotism thrive. In 1994, his worst mistake, he agreed to invade Chechnya, starting a conflict that still scars, degrades and endangers his country.

Most unusually, he admitted those mistakes. When, for the first time in Russian history, he voluntarily handed power to his (handpicked) successor, he apologised to his people—who, in truth, had never fought for freedom as hard as he had.

> I ask you to forgive me for not fulfilling the hopes of those people who believed that we would be able to jump from the grey, stagnating, totalitarian past into a bright, rich and civilised future in one go. I myself believed in this. But it could not be done in one fell swoop...I am leaving. I have done everything I could...In saying farewell, I wish to say to each of you the following. Be happy. You deserve happiness. You deserve happiness and peace.

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Overview

Apr 26th 2007
From The Economist print edition

The **Dow Jones Industrial Average** closed above 13,000 for the first time. Investors were buoyed by the news that orders for **durable goods** grew by 3.4% in March and by more than originally thought in February. New orders for non-defence capital goods, excluding aircraft, grew by 4.7%. This will ease worries, voiced by the Federal Reserve, that “sluggish” business investment might slow the economy.

German businessmen are in confident mood. The Ifo institute's business-climate index, based on a survey of about 7,000 companies, rose to 108.6 in April, almost regaining its December peak. The **euro** also neared its strongest rate against the dollar of over $1.366, set in December 2004.

Sales of existing **homes** in America fell by 8.4% in March, the biggest decline since the 1980s. The National Association of Realtors blamed bad weather. Sales of new homes, on the other hand, rose by 2.6% last month.

Britain's economy maintained a steady pace in the first three months of 2007, growing by 0.7% for the second quarter in a row. In the year to the first quarter, GDP grew by 2.8%.

South Korea's GDP grew by 4% in the year to the first quarter.

New Zealand pioneered many of the liberal reforms the OECD prescribes for others. But despite the economy's flexibility and resilience, the OECD is worried by its external deficit and disappointed by its “lacklustre” productivity growth.

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Output, prices and jobs

Apr 26th 2007
From The Economist print edition

Output, prices and jobs

% change on year ago

	Gross domestic product				Industrial production	Consumer prices			Unemployment
	latest	qtr*	2007†	2008†	latest	latest	year ago	2007†	rate‡, %
United States	+3.1 Q4	+2.5	+2.3	+2.7	+2.3 Mar	+2.8 Mar	+3.4	+2.1	4.4 Mar
Japan	+2.3 Q4	+5.5	+2.3	+2.3	+3.1 Feb	−0.2 Feb	−0.1	+0.1	4.0 Feb
China	+11.1 Q1	na	+9.8	+9.7	+17.6 Mar	+3.3 Mar	+0.8	+2.7	9.8 2006
Britain	+2.8 Q1	+2.6	+2.6	+2.5	+0.3 Feb	+3.1 Mar**	+1.8	+2.1	5.5 Feb††
Canada	+2.3 Q4	+1.4	+2.4	+2.7	−2.3 Jan	+2.3 Mar	+2.2	+1.7	6.1 Mar
Euro area	+3.3 Q4	+3.6	+2.3	+2.1	+4.1 Feb	+1.9 Mar	+2.2	+1.8	7.3 Feb
Austria	+3.3 Q4	+3.3	+2.8	+2.6	+8.5 Jan	+1.8 Mar	+1.0	+1.6	4.4 Mar
Belgium	+2.8 Q1	+2.4	+2.3	+2.2	+3.4 Feb	+1.8 Mar	+1.7	+1.8	11.2 Mar‡‡
France	+2.5 Q4	+2.9	+2.1	+2.1	+2.6 Feb	+1.2 Mar	+1.5	+1.4	8.4 Feb
Germany	+3.7 Q4	+3.5	+2.2	+2.1	+7.6 Feb	+1.9 Mar	+1.8	+1.7	9.2 Mar
Greece	+4.3 Q4	na	+3.2§	+3.1§	+2.3 Feb	+2.6 Mar	+3.3	+2.8§	8.6 Jan
Italy	+2.8 Q4	+4.7	+1.9	+1.6	−0.7 Feb	+1.7 Mar	+2.1	+1.8	6.5 Q4
Netherlands	+2.7 Q4	+2.6	+2.6	+2.4	+6.1 Feb	+1.8 Mar	+1.0	+1.4	5.3 Mar††
Spain	+4.0 Q4	+4.8	+3.4	+2.8	+3.5 Feb	+2.5 Mar	+3.9	+2.5	8.6 Mar
Czech Republic	+5.8 Q4	+5.8	+5.1	+4.6	+15.4 Feb	+1.9 Mar	+2.8	+2.4	7.3 Mar
Denmark	+2.9 Q4	+1.5	+2.3	+2.3	+0.7 Feb	+2.0 Mar	+1.9	+1.8	3.9 Mar
Hungary	+3.2 Q4	+3.2	+2.3	+3.0	+10.7 Feb	+9.0 Mar	+2.3	+6.6	7.5 Mar††
Norway	+2.7 Q4	+2.0	+2.8§	+2.5§	−1.6 Feb	+1.1 Mar	+2.4	+1.6§	2.7 Feb††
Poland	+6.4 Q4	na	+5.4	+5.0	+11.3 Mar	+2.5 Mar	+0.4	+2.0	14.4 Mar‡‡
Russia	+7.9 Q1	na	+7.0	+6.3	+7.9 Mar	+7.1 Mar	+10.6	+7.3	7.3 Feb‡‡
Sweden	+4.7 Q4	+5.0	+3.8	+3.0	+6.8 Feb	+1.9 Mar	+0.7	+1.6	4.8 Mar‡‡
Switzerland	+2.2 Q4	+1.8	+2.0	+2.0	+8.9 Q4	+0.2 Mar	+1.0	+0.7	3.0 Mar‡‡
Turkey	+5.2 Q4	na	+4.3	+5.3	+7.1 Feb	+10.9 Mar	+8.2	+8.3	9.6 Q4‡‡
Australia	+2.8 Q4	+4.2	+2.9	+3.2	+3.7 Q4	+2.4 Q1	+3.0	+2.7	4.5 Mar
Hong Kong	+7.0 Q4	+5.3	+5.4	+5.1	−1.4 Q4	+2.4 Mar	+1.6	+2.5	4.3 Mar††
India	+8.6 Q4	na	+8.0	+7.8	+11.0 Feb	+7.6 Feb	+4.9	+5.0	7.6 2006
Indonesia	+6.1 Q4	na	+6.0	+5.9	+23.1 Jan	+6.5 Mar	+15.7	+6.5	10.3 2005
Malaysia	+5.7 Q4	na	+5.5	+5.7	−0.2 Feb	+1.5 Mar	+4.8	+2.5	3.0 Q4
Pakistan	+6.6 2006§§	na	+6.6§	+6.0§	+6.8 Sep	+7.7 Mar	+6.9	+6.8§	na
Singapore	+6.0 Q1	+7.2	+5.4	+5.4	−2.9 Mar	+0.7 Mar	+1.2	+1.4	2.6 Q4
South Korea	+4.0 Q1	+3.6	+4.4	+4.7	−0.4 Feb	+2.2 Mar	+2.0	+2.3	3.2 Mar
Taiwan	+4.0 Q4	na	+4.3	+4.6	+0.1 Mar	+0.8 Mar	+0.4	+1.4	3.9 Mar
Thailand	+4.2 Q4	+2.7	+4.3	+4.8	+5.5 Feb	+2.0 Mar	+5.7	+2.9	1.6 Jan
Argentina	+8.6 Q4	+7.4	+7.0	+4.8	+3.7 Mar	+9.1 Mar	+11.1	+9.8	9.7 Q3‡‡
Brazil	+3.8 Q4	+4.5	+3.3	+3.5	+3.0 Feb	+3.0 Mar	+5.3	+3.7	9.9 Feb‡‡
Chile	+4.3 Q4	+7.8	+5.1	+5.2	+4.6 Feb	+2.6 Mar	+4.0	+2.6	6.4 Feb†††‡
Colombia	+8.0 Q4	nil	+5.0	+4.5	+14.6 Feb	+5.8 Mar	+4.1	+4.2	13.8 Jan‡‡
Mexico	+4.3 Q4	+1.9	+3.5	+3.7	nil Feb	+4.2 Mar	+3.4	+3.8	4.0 Mar‡‡
Venezuela	+11.8 Q4	na	+6.2	+3.9	+6.7 Jan	+18.5 Mar	+12.1	+18.3	8.9 Q4‡‡
Egypt	+7.1 Q3	na	+6.5	+5.9	+10.5 2006	+12.8 Mar	+3.7	+9.9	10.9 Q2‡‡
Israel	+3.7 Q4	+8.0	+4.6	+4.3	+8.4 Feb	−0.9 Mar	+3.6	+1.4	7.7 Q4
Saudi Arabia	+4.2 2006§	na	+3.9§	+5.0§	na	+3.0 Jan	+1.5	+2.6§	na
South Africa	+6.1 Q4	+5.6	+4.4	+4.7	+7.1 Feb	+6.1 Mar	+3.4	+5.4	25.5 Sep‡‡
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*								
Estonia	+10.9 Q4	+8.2	+9.2§	+7.4§	+8.4 Feb	+5.7 Mar	+4.0	+4.3§	4.9 Feb
Finland	+5.3 Q4	+3.8	+2.7§	+2.5§	−1.3 Feb	+2.6 Mar	+0.9	+1.9§	7.2 Mar
Iceland	+2.5 Q4	+7.8	+0.4§	+2.6§	na	+5.3 Apr	+5.5	+4.9§	1.3 Mar‡‡
Ireland	+5.0 Q4	+0.1	+5.4§	+3.6§	+22.3 Feb	+5.1 Mar	+3.5	+3.4§	4.2 Mar
Latvia	+11.9 Q4	na	+9.2§	+7.5§	+2.0 Feb	+8.5 Mar	+6.5	+6.0§	5.8 Feb
Lithuania	+6.9 Q4	+7.4	+6.5§	+6.4§	na	+4.6 Mar	+3.1	+1.8§	6.2 Feb
Luxembourg	+5.0 Q4	+7.0	+4.6§	+4.1§	+0.4 Jan	+2.1 Mar	+3.0	+3.0§	4.8 Feb‡‡
New Zealand	+2.9 Q4	+5.0	+2.6§	+3.1§	−0.4 Q4	+2.5 Q1	+3.3	+3.0§	3.7 Q4
Peru	+7.4 Feb	na	+6.1	+5.5	+11.5 Jan	+0.2 Mar	+2.5	+1.4	9.5 Feb‡‡
Philippines	+6.5 Q4	+5.6	+5.6	+5.7	+2.0 Jan	+2.2 Mar	+7.6	+4.2	7.3 Q4‡‡
Portugal	+1.7 Q4	+1.9	+1.6§	+2.1§	+4.5 Feb	+2.3 Mar	+3.9	+2.2	8.2 Q4‡‡
Slovakia	+9.6 Q4	na	+7.0§	+5.4§	+15.5 Feb	+2.7 Mar	+4.5	+2.5	11.2 Feb
Slovenia	+5.5 Q4	na	+4.2§	+4.0§	+9.3 Feb	+2.3 Mar	+1.9	+2.7	8.3 Feb‡‡

*% change on previous quarter, annual rate. †*The Economist* poll. ‡National definitions. §Economist Intelligence Unit estimate/forecast. **RPI inflation rate 4.8% in Mar. ††Latest three months. ‡‡Not seasonally adjusted. §§Year ending June.

Sources: National statistics offices and central banks; Thomson Datastream; Reuters; Centre for Monitoring Indian Economy; OECD; ECB

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The Economist commodity-price index

Apr 26th 2007
From The Economist print edition

The Economist commodity-price index

2000=100

	Apr 17th	Apr 24th*	% change on one month	% change on one year
Dollar index				
All items	200.3	201.6	+4.5	+17.7
Food	157.8	156.1	−1.3	+14.8
Industrials				
All	255.3	260.3	+9.5	+20.0
Nfa†	160.3	157.6	+0.6	+5.5
Metals	307.1	316.4	+12.1	+24.7
Sterling index				
All items	151.5	152.6	+2.5	+5.1
Euro index				
All items	136.5	136.8	+2.4	+7.2
Gold				
$ per oz	688.05	685.75	+8.2	+8.8
West Texas Intermediate				
$ per barrel	63.05	64.55	+2.5	−10.7

*Provisional †Non-food agriculturals.

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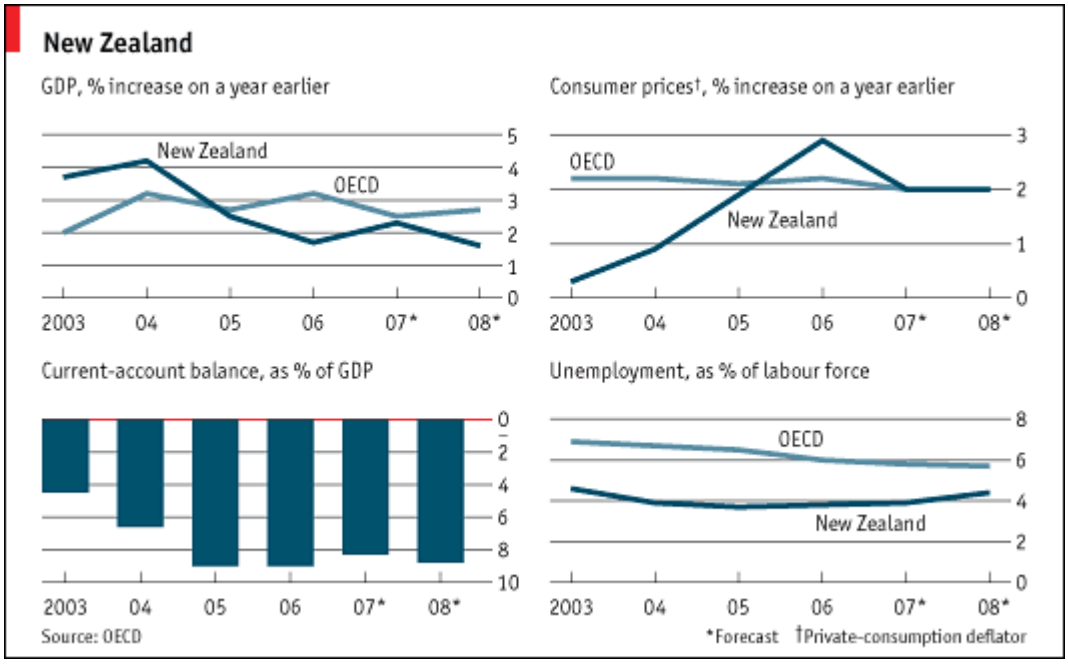
New Zealand

Apr 26th 2007
From The Economist print edition



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Trade, exchange rates, budget balances and interest rates

Apr 26th 2007
From The Economist print edition

Trade, exchange rates, budget balances and interest rates

	Trade balance* latest 12 months, $bn	Current-account balance latest 12 months, $bn	Current-account balance % of GDP 2007†	Currency units, per $ Apr 25th	Currency units, per $ year ago	Budget balance % of GDP 2007‡	Interest rates, % 3-month latest	Interest rates, % 10-year gov't bonds, latest
United States	−825.2 Feb	−856.7 Q4	−6.1	–	–	−1.6	5.23	4.64
Japan	+84.0 Feb	+173.9 Feb	+4.1	118	115	−4.7	0.57	1.65
China	+200.9 Mar	+160.8 2005	+7.6	7.72	8.02	−1.7	2.98	3.58
Britain	−154.8 Feb	−80.1 Q4	−3.0	0.50	0.56	−2.7	5.50	5.05
Canada	+46.3 Feb	+21.4 Q4	+1.0	1.12	1.13	0.8	4.16	4.17
Euro area	−6.2 Feb	−17.3 Jan	−0.1	0.73	0.80	−1.0	4.00	na
Austria	+0.4 Jan	+11.6 Q3	+1.3	0.73	0.80	−0.9	4.00	4.23
Belgium	+18.3 Feb	+7.8 Dec	+2.7	0.73	0.80	0.4	4.05	4.42
France	−34.4 Feb	−30.5 Feb	−1.3	0.73	0.80	−2.7	4.00	4.23
Germany	+213.0 Feb	+153.5 Feb	+4.7	0.73	0.80	−0.3	4.00	4.18
Greece	−45.3 Jan	−31.5 Feb	−7.8‡	0.73	0.80	−2.6	4.00	4.39
Italy	−25.2 Feb	−47.1 Feb	−1.9	0.73	0.80	−2.6	4.00	4.40
Netherlands	+42.4 Feb	+59.7 Q4	+8.3	0.73	0.80	0.6	4.00	4.21
Spain	−115.9 Feb	−109.8 Jan	−8.8	0.73	0.80	1.7	4.00	4.24
Czech Republic	+2.4 Feb	−6.1 Q4	−3.3	20.6	22.8	−4.3	2.64	3.91
Denmark	+6.3 Feb	+5.8 Feb	+2.7	5.45	6.00	3.1	4.20	4.21
Hungary	−2.4 Feb	−6.5 Q4	−5.0	180	213	−6.7	7.82	6.70
Norway	+54.7 Mar	+56.1 Q4	+15.3‡	5.96	6.26	18.7	4.61	4.78
Poland	−5.3 Feb	−8.2 Feb	−2.5	2.76	3.12	−2.4	4.35	5.29
Russia	+134.1 Feb	+95.6 Q4	+6.0	25.7	27.4	5.5	10.50	6.18
Sweden	+20.1 Mar	+28.4 Q4	+6.6	6.72	7.49	2.2	3.33	4.05
Switzerland	+10.4 Mar	+106.1 Q4	+15.3	1.20	1.27	1.2	2.31	2.74
Turkey	−53.0 Feb	−32.4 Feb	−7.0	1.33	1.33	−2.7	19.06	18.29
Australia	−9.9 Feb	−40.9 Q4	−5.2	1.20	1.33	1.3	6.51	5.83
Hong Kong	−16.9 Feb	+20.2 Q4	+9.4	7.82	7.76	1.9	4.18	4.04
India	−56.1 Feb	−10.0 Q4	−2.3	40.9	45.1	−4.3	7.46	8.23
Indonesia	+40.1 Feb	+9.6 Q4	+1.2	9,082	8,800	−1.2	8.71	6.27§
Malaysia	+29.3 Feb	+22.2 Q3	+12.9	3.42	3.64	−3.3	3.62	5.15§
Pakistan	−13.4 Mar	−6.5 Q4	−5.4‡	60.7	60.0	−4.6	9.76	6.66§
Singapore	+34.4 Mar	+36.3 Q4	+23.5	1.51	1.59	0.3	2.63	2.61
South Korea	+17.7 Mar	+5.7 Mar	+0.3	927	947	0.4	4.96	5.03
Taiwan	+14.1 Mar	+25.2 Q4	+5.9	33.2	32.1	−2.3	1.86	2.21
Thailand	+3.4 Jan	+4.6 Jan	+1.9	34.8	37.7	−1.4	4.15	3.82
Argentina	+11.7 Mar	+8.1 Q4	+2.4	3.08	3.04	1.5	9.38	na
Brazil	+45.5 Mar	+13.6 Mar	+0.7	2.03	2.12	−2.4	12.43	6.16§
Chile	+23.8 Mar	+5.3 Q4	+0.8	527	518	4.3	5.04	5.18§
Colombia	−0.5 Jan	−2.9 Q4	−2.3	2,113	2,373	−1.5	7.50	5.88§
Mexico	−9.2 Mar	−1.5 Q4	−1.2	10.9	11.2	−0.2	7.00	7.50
Venezuela	+33.0 Q4	+27.2 Q4	+9.3	3,379	2,514	−4.9	10.08	6.55§
Egypt	−12.6 Q4	+2.7 Q4	+1.3	5.69	5.75	−7.6	7.53	5.33§
Israel	−7.8 Mar	+6.8 Q4	+3.4	4.03	4.54	−2.8	4.02	4.50
Saudi Arabia	+165.7 2006	+90.0 2005	+18.3‡	3.75	3.75	13.7	5.06	na
South Africa	−9.5 Feb	−16.3 Q4	−5.9	6.98	6.18	0.5	9.30	7.64
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*							
Estonia	−3.5 Jan	−2.7 Feb	−13.5‡	11.5	12.6	1.6	4.30	na
Finland	+11.6 Feb	+12.7 Feb	+5.6‡	0.73	0.80	2.3	3.97	4.22
Iceland	−1.9 Mar	−4.4 Q4	−16.2‡	64.1	74.7	2.1	13.96	na
Ireland	+35.3 Jan	−7.2 Q4	−4.3‡	0.73	0.80	1.0	4.00	4.20
Latvia	−5.3 Feb	−4.8 Feb	−23.1‡	0.51	0.56	nil	8.34	na
Lithuania	−5.7 Feb	−3.5 Feb	−10.3‡	2.53	2.78	−0.5	4.65	na
Luxembourg	−5.2 Jan	+4.4 Q4	na	0.73	0.80	−0.8	4.00	na
New Zealand	−3.8 Mar	+6.2 Q4	−9.1‡	1.34	1.58	3.5	7.00	6.11
Peru	+8.7 Feb	+2.5 Q4	+1.0	3.18	3.32	0.3	4.50	na
Philippines	−3.7 Jan	+5.0 Dec	+3.2	47.5	51.9	−0.7	5.75	na
Portugal	−23.3 Jan	−17.8 Feb	−7.7‡	0.73	0.80	−3.7	4.00	4.31
Slovakia	−2.4 Feb	−4.6 Dec	−5.5‡	24.6	29.9	−3.0	3.59	4.19
Slovenia	−2.1 Feb	−1.3 Jan	−2.3‡	0.73	0.80	−1.2	na	na

*Merchandise trade only. †*The Economist* poll. ‡Economist Intelligence Unit forecast. §Dollar-denominated bonds.

Sources: National statistics offices and central banks; Thomson Datastream; Reuters; JPMorgan; Bank Leumi le-Israel; Centre for Monitoring Indian Economy; Danske Bank; Hong Kong Monetary Authority; Standard Bank Group; UBS; Westpac.

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Markets

Apr 26th 2007
From The Economist print edition

Markets

	Index Apr 25th	% change on one week	% change on Dec 29th 2006 in local currency	% change on Dec 29th 2006 in $ terms
United States (DJIA)	13,089.9	+2.2	+5.0	+5.0
United States (S&P 500)	1,495.4	+1.6	+5.4	+5.4
United States (NAScomp)	2,547.9	+1.5	+5.5	+5.5
Japan (Nikkei 225)	17,236.2	−2.4	+0.1	+0.6
Japan (Topix)	1,687.3	−2.5	+0.4	+0.9
China (SSEA)	3,935.0	+3.6	+39.8	+41.4
China (SSEB, $ terms)	208.5	+3.7	+58.4	+60.2
Britain (FTSE 100)	6,462.0	+0.2	+3.9	+6.5
Canada (S&P TSX)	13,672.9	−0.3	+5.9	+10.4
Euro area (FTSE Euro 100)	1,378.2	+0.9	+7.8	+11.7
Euro area (DJ STOXX 50)	4,404.4	+1.0	+6.9	+10.7
Austria (ATX)	4,750.6	+1.9	+6.4	+10.3
Belgium (Bel 20)	4,641.2	+1.4	+5.8	+9.6
France (CAC 40)	5,947.3	+1.9	+7.3	+11.2
Germany (DAX)*	7,343.1	+0.8	+11.3	+15.3
Greece (Athex Comp)	4,836.8	+0.7	+10.1	+14.0
Italy (S&P/MIB)	43,755.0	+1.1	+5.6	+9.4
Netherlands (AEX)	535.3	+0.8	+8.1	+12.0
Spain (Madrid SE)	1,620.6	−1.7	+4.2	+8.0
Czech Republic (PX)	1,828.0	+1.9	+15.0	+16.6
Denmark (OMXCB)	466.7	+1.1	+10.0	+14.1
Hungary (BUX)	25,605.1	+1.5	+3.1	+9.2
Norway (OSEAX)	537.8	+2.0	+7.1	+11.8
Poland (WIG)	59,535.4	−0.2	+18.1	+24.1
Russia (RTS, $ terms)	1,973.5	+0.4	+0.2	+2.7
Sweden (Aff.Gen)	403.2	−0.4	+10.4	+12.4
Switzerland (SMI)	9,429.3	+1.6	+7.3	+9.0
Turkey (ISE)	48,032.7	+5.3	+22.8	+30.9
Australia (All Ord.)	6,173.3	−0.7	+9.4	+15.8
Hong Kong (Hang Seng)	20,536.8	−1.2	+2.9	+2.3
India (BSE)	14,217.8	+4.0	+3.1	+11.6
Indonesia (JSX)	1,986.7	+1.4	+10.0	+9.0
Malaysia (KLSE)	1,316.0	−1.0	+20.0	+23.8
Pakistan (KSE)	12,166.0	−0.2	+21.2	+21.6
Singapore (STI)	3,362.7	−1.1	+12.6	+14.3
South Korea (KOSPI)	1,545.6	+0.7	+7.7	+8.1
Taiwan (TWI)	7,984.7	−0.2	+2.1	+0.2
Thailand (SET)	690.3	−0.3	+1.5	+5.5
Argentina (MERV)	2,185.5	−1.2	+4.5	+4.0
Brazil (BVSP)	49,675.0	+2.0	+11.7	+17.7
Chile (IGPA)	14,167.3	+1.1	+14.5	+15.6
Colombia (IGBC)	10,823.0	+0.7	−3.0	+2.8
Mexico (IPC)	29,444.2	−0.4	+11.3	+10.2
Venezuela (IBC)	47,700.1	−3.7	−8.7	−9.6
Egypt (Hermes)	64,559.0	−1.8	+5.3	+5.8
Israel (TA-100)	1,063.0	+1.9	+15.3	+20.7
Saudi Arabia (Tadawul)	7,273.3	−2.9	−8.3	−8.3
South Africa (JSE AS)	28,223.3	+0.3	+13.3	+14.4
Europe (FTSEurofirst 300)	1,574.0	+0.6	+6.1	+9.9
World, dev'd (MSCI)	1,587.8	+0.7	+7.0	+7.0
Emerging markets (MSCI)	982.7	+0.7	+7.7	+7.7
World, all (MSCI)	393.8	+0.7	+7.1	+7.1
World bonds (Citigroup)	673.8	+0.3	+2.4	+2.4
EMBI+ (JPMorgan)	422.4	+0.5	+3.7	+3.7
Hedge funds (HFRX)	1,323.6	+0.3	+3.7	+3.7
Volatility, US (VIX)	13.2	12.4	11.6	(levels)
CDSs, Eur (iTRAXX)†	18.1	−3.7	−15.5	−12.4
CDSs, N Am (CDX)†	30.0	−3.2	+2.1	+2.1
Carbon trading (EU ETS) €	0.61	+13.0	−90.3	−90.0

*Total return index. †Credit-default swap spreads, basis points.

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Reuters; WM/Reuters; JPMorgan Chase; Bank Leumi le-Israel; CBOE; CME; Danske Bank; EEX; HKMA; Markit; Standard Bank Group; UBS; Westpac.

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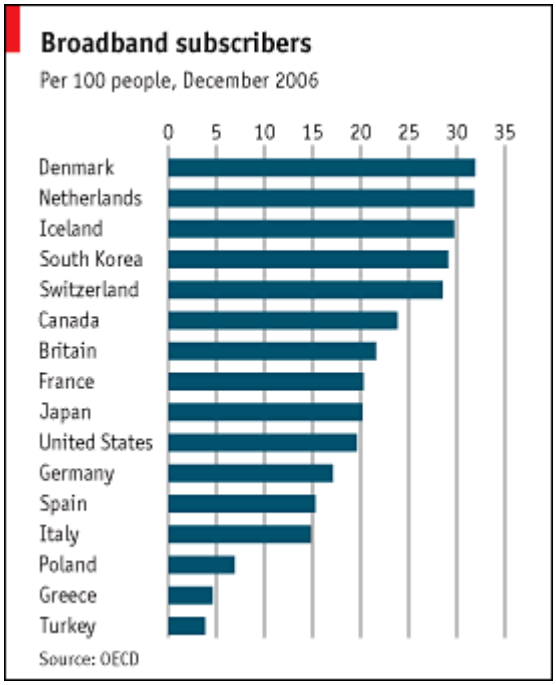
Broadband subscribers

Apr 26th 2007
From The Economist print edition



The number of broadband subscriptions in OECD economies rose from 157m, or 13.5 per 100 people, in December 2005 to 197m, or 16.9 per 100 people, a year later. Denmark and the Netherlands top the chart, with more than 30 subscriptions per 100 people. In 2006 these two countries overtook South Korea, the leader for several years, and Iceland. Operators in some countries are upgrading connections to fibre, which now accounts for 7% of the OECD total. South Korea boasts seven fibre-using subscriptions per 100 people and Japan has 6.2. Both countries are seeing a decline in DSL, commonly the leading access technology elsewhere. Cable is the most common method in America and Canada.

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